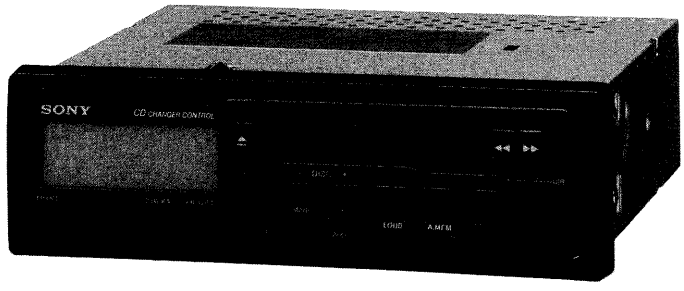
# XR-C113

# SERVICE MANUAL

*East European Model*




| | |
|---|---|
| Model Name Using Similar Mechanism | XR-3503MK2 |
| Tape Transport Mechanism Type | MG-36SZ7-32 |

## SPECIFICATIONS

### Cassette player section

| | |
|---|---|
| Tape track | 4-track 2-channel stereo |
| Wow and flutter | 0.13 % (WRMS) |
| Frequency response | 30 – 15,000 Hz |
| Signal-to- noise ratio | 55 dB |

### Tuner section

**FM**

| | |
|---|---|
| Tuning range | 65.0 – 74.0 MHz<br>87.5 – 108.0 MHz |
| Antenna terminal | External antenna connector |
| Intermediate frequency | 10.7 MHz |
| Usable sensitivity | 15 dBf<br>(75 ohms 87.5 – 108.0 MHz)<br>12 dBf<br>(75 ohms 65.0 – 74.0 MHz) |
| Selectivity | 70 dB at 400 kHz |
| Signal-to-noise ratio | 63 dB (stereo),<br>68 dB (mono) |
| Harmonic distortion at 1 kHz | 0.5% (stereo),<br>0.4% (mono) |
| Separation | 28 dB at 1 kHz |
| Frequency response | 30 – 15,000 Hz |
| Capture ratio | 5 dB |

**MW/LW**

| | |
|---|---|
| Tuning range | MW: 531 – 1,602 kHz<br>LW: 153 – 281 kHz |
| Antenna terminal | External antenna connector |
| Intermediate frequency | 450 kHz |
| Sensitivity | MW: 35 µV<br>LW: 70 µV |

### Power amplifier section

| | |
|---|---|
| Outputs | Speaker outputs<br>(sure seal connectors) |
| Speaker impedance | 4 – 8 ohms |
| Maximum power output | 25 W × 4 (at 4 ohms) |

### General

| | |
|---|---|
| Output lead | Power antenna relay control lead/Power amplifier control lead |
| Tone controls | Bass ±8 dB at 100 Hz<br>Treble ±8 dB at 10 kHz |
| Power requirements | 12 V DC car battery (negative ground) |
| Dimensions | Approx. 188 × 58 × 170 mm (w/h/d) not incl. projecting parts and controls |
| Mounting dimension | Approx. 182 × 53 × 153 mm (w/h/d) not incl. projecting parts and controls |
| Mass | Approx. 1.3 kg |
| Supplied accessories | Parts for installation and connections (1 set)<br>Front panel case (1) |

*Design and specifications are subject to change without notice.*

## FM/MW/LW CASSETTE CAR STEREO

SONY®

## TABLE OF CONTENTS


**1. GENERAL**

Button Locations ..... 3
Setting the Clock ..... 3
Cassette Player Operation ..... 3
Radio Reception ..... 4
Other Functions ..... 5
CD Changer Operation ..... 5
Maintenance ..... 5
Connections ..... 6

**2. DISASSEMBLY**

2-1. Cover ..... 8
2-2. Lock Assy ..... 8
2-3. MD Block ..... 9
2-4. Heat Sink ..... 9
2-5. Main Board ..... 10

**3. MECHANICAL ADJUSTMENTS** ..... 11

**4. ELECTRICAL ADJUSTMENTS**

Deck Section ..... 11
Tuner Section ..... 12

**5. DIAGRAMS**

5-1. IC Pin Description ..... 17
5-2. Printed Wiring Boards ..... 20
5-3. Schematic Diagram ..... 23

**6. EXPLODED VIEWS**

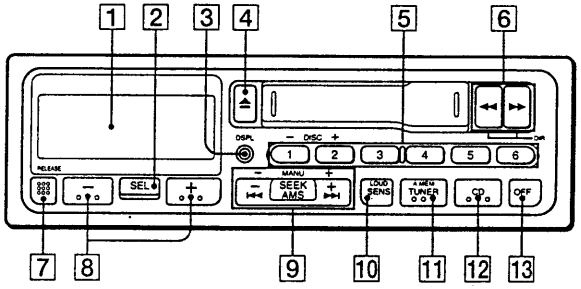
6-1. Chassis Section ..... 27
6-2. Front Panel Section ..... 28
6-3. Mechanism Section (1) ..... 29
6-3. Mechanism Section (2) ..... 30

**7. ELECTRICAL PARTS LIST** ..... 31


**Notes on Chip Component Replacement**

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

## Button Locations




Refer to the pages in ● for details.

1 Display window
2 SEL (control mode select) button ❺❽
3 DSPL (display mode change/time set) button ❺
4 ⏏ (eject) button ❺
5 During radio reception:
Preset number buttons ❼
During CD playback:
(changing discs) buttons ❾
6 ◀◀ • ▶▶ (fast winding)/DIR (tape transport direction change) buttons ❺❻
7 RELEASE (front panel release) button ❹❾
8 (bass/treble/balance/fader control/volume) buttons ❺❽
9 SEEK/AMS/MANU button ❻❼❽
10 SENS/LOUD (sensitivity adjust/loudness) button ❻❽
11 TUNER/A.MEM (radio on • band select/automatic memory) button ❺❻❼
12 CD (disc play/CD changer select) button ❽❾
13 OFF button ❹

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## Setting the Clock

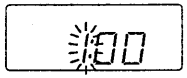
The clock has a 24-hour digital indication.

For example, setting it to 10:08

1 Press the button to turn on the unit.

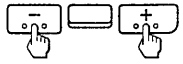
2 Display the time.
(Press the DSPL button during unit operation.)

3 Press the DSPL button for more than two seconds.



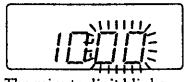
The hour digit blinks.

Set the hour digits.



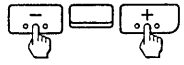
(to go back) (to go forward)

4 Press the SEL button momentarily.



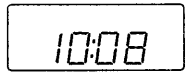
The minute digit blinks.

Set the minute digits.



(to go back) (to go forward)

5 Press the DSPL button momentarily.



The clock activates.

***Note***

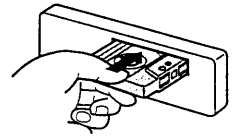
*The clock cannot be set unless the power is turned on. Set the clock after you turn on the radio, or during tape playback.*



# Cassette Player Operation

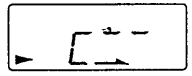
## Listening to Tape Playback

**After inserting the cassette, playback starts automatically.**

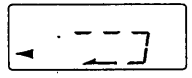


**To change the tape direction,**
press both the ◀◀ and the ▶▶ buttons at the same time.

*Indication of Tape Transport Direction*



*The side facing up is being played.*



*The side facing down is being played.*

**Tape playback automatically changes direction at the end of the tape.**

***Note***

*Before turning off the unit, eject the tape to avoid tape damage.*

## Ejecting the Cassette

Press the ⏏ button to stop playback and eject the cassette.

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This section is extracted from instruction manual.

## Fast-winding the Tape

| Direction indicator* | To advance | To rewind |
|---|---|---|
| ► | | |
| ◄ | | |

To resume playback, press the other fast-winding button partially until the locked button is released.

* *The ◄ or ► indicator flashes while fast-winding the tape.*

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# Radio Reception

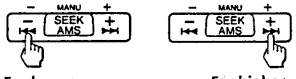
## Searching for Stations Automatically

— Automatic Tuning

**1** **Select the desired band.**

FM I → FM II → MW → LW → FM I

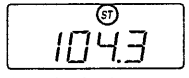
**2** **Press either side of the SEEK/AMS/MANU button momentarily to search for the next station (automatic tuning).**



For lower frequencies | For higher frequencies

The scanning stops when a station is received. Press either side of the button repeatedly until the desired station is received.

***When an FM stereo program with a sufficient signal strength is tuned in,***



*the "ST" indication appears.*

***To avoid the automatic tuning from stopping on stations too frequently (local seek mode), press the LOCAL SENS button momentarily to get the "LCL" indication.***

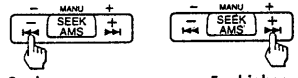
*Only the stations with relatively strong signals are tuned in. The local seek mode functions only when the automatic tuning is in operation.*

## Tuning in by Adjusting the Frequency — Manual Tuning

**1** **Select the desired band.**

FM I → FM II → MW → LW → FM I

**2** **Press and hold either side of the SEEK/AMS/MANU button.**
Release the button when the desired station is received.



For lower frequencies | For higher frequencies

**PREVENT ACCIDENTS!**
When tuning in during driving, use the automatic tuning and the memory preset tuning instead of the manual tuning.

## Memorizing Stations Automatically

— Automatic Memory Function

Stations with the clearest reception are automatically searched and memorized on each band (FM I, FM II, MW and LW). Up to 6 stations on each band can be stored on the preset number buttons 1 to 6 in the order of band frequency.

**1** **Select the desired band.**

FM I → FM II → MW → LW → FM I

**2** **Press the TUNER/A.MEM button for more than two seconds.**

The unit starts scanning the selected band and memorize the tuned stations on the preset number button 1 through 6 automatically.

## Memorizing Only the Desired Stations

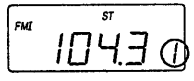
**1** **Select the desired band.**

FM I → FM II → MW → LW → FM I

**2** **Tune in the station which you wish to store on the preset number button.**

**3** **Press and hold the desired preset number button ( 1 to 6 ) for about two seconds.**

The number of the pressed preset number button appears on the display.




*Up to 6 stations on each band (FM I, FM II, MW and LW) can be stored on the preset number buttons in the order of your choice. Therefore, 12 stations can be memorized on FM.*
*If you try to store another station on the same preset number button, the previously stored station is erased.*

## Receiving the Memorized Stations

**1** **Select the desired band.**

FM I → FM II → MW → LW → FM I

**2** **Press momentarily the preset number button on which the desired station is stored.**

***Note***
*If you press the preset number button for more than two seconds, the currently received station is memorized. To receive the previously memorized station, make sure that the preset number button is pressed only momentarily.*

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Cassette Player Operation/Radio Reception

# Other Functions

## Adjusting the Sound Characteristics

**1** **Select the item you want to adjust by pressing the SEL button repeatedly.**

BAS (bass) → TRE (treble) → BAL (balance) → FAD (fader) → VOL (volume) → BAS (bass)

**2** **Adjust the selected item by pressing either the − or + button.**

Adjust within three seconds after selecting. (After three seconds the button will again serve as the volume control button.)

## Enjoying Bass and Treble at Low Volume

— Loudness Function

**Press the LOUD SENS button for more than two seconds. → "LOUD" appears on the display.**
Bass and treble are boosted. To cancel, press again.

# CD Changer Operation

With the optional CD changer(s) connected

## Playing a CD

**Press the CD button.**
CD playback starts.

## Locating the Beginnings of the Tracks

— AMS (Automatic Music Sensor) Function

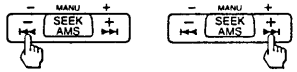
**During playback, press either side of the SEEK/AMS/MANU button the number of times you wish to skip the tracks.**

To locate the previous tracks

To locate the succeeding tracks

## Locating the Desired Part of a Track —Manual Search

**During playback, press and hold either side of the SEEK/AMS/MANU button.**
Release the button when you have found the desired part.




To reverse

To forward

## Changing CDs

**During playback, press either the 1 or 2 button momentarily.**

To return to the previous disc

To advance to the next disc

## Selecting CD Changers

(with two CD changers connected)

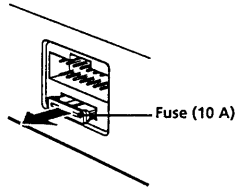
**Press the CD button during CD playback.**
Each time you press, another CD changer is selected.

CD I ⟷ CD II

## Maintenance

### Fuse Replacement

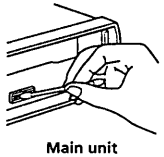
When replacing the fuse, be sure to use one matching the amperage rating stated on the fuse. If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In such a case, consult your nearest Sony dealer.



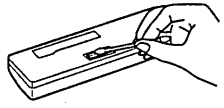

**Warning**
Never use a fuse with an amperage rating exceeding the one supplied with the unit as this could damage the unit.

### Cleaning the Connectors

The unit may not function properly if the connectors between the unit and the front panel are not clean. In order to prevent this, open the front panel by pressing the RELEASE button, then detach it and clean with a cotton swab dipped in alcohol. Do not apply too much force. Otherwise, the connector may get damaged.



Main unit



Back of the front panel

# Connections

## Caution

- This unit is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the **yellow** and **red** power input leads only after all other leads have been connected.
- Be sure to connect the red power input lead to the positive 12 V power terminal which is energized when the ignition key is in the accessory position.
- **Run all ground wires to a common ground point.**

# Podłączenia

## Uwaga

- Sprzęt jest przeznaczony do pracy przy uziemieniu ujemnym 12V DC (prąd stały).
- Przed podłączeniem należy odłączyć uziemienie akumulatora samochodowego, aby zapobiec powstaniu zwarcia.
- **Żółty** i **czerwony** wejściowy przewód zasilający należy połączyć dopiero po podłączeniu wszystkich innych przewodów.
- Czerwony przewód zasilający proszę podłączyć do końcówki o napięciu +12 V, która zasilana jest zawsze po przekręceniu kluczyka w stacyjce do położenia, w którym włącza się zasilanie przyrządów.
- **Wszystkie przewody uziemiające należy poprowadzić do wspólnego miejsca uziemienia.**

# Свързване

## Предупреждение

- Този апарат е предназначен за работа само при 12 V прав ток и заземяване на отрицателната клема.
- Преди да направите свързването, откачете заземяващата клема от акумулатора на автомобила, за да избегнете къси съединения
- Свържете жълтия и червения захранващи проводници само след като всички други проводници са свързани
- Уверете се, че свързвате червения захранващ проводник към положителната клема под 12 V, към която се подава когато ключът за запалване е в положение за спомагателни уреди.
- **Подведете всички заземяващи проводници към обща заземяваща точка.**

# Csatlakozások

## Figyelem

- Ez a készülék csak 12 V-os negatív földelésű, egyenáramú akkumulátorról üzemeltethető.
- Egy esetleges rövidzárlat elkerülése érdekében vegye le az autó akkumulátorának csatlakozóját a készülék csatlakoztatása előtt.
- **A sárga és a piros** színű tápvezetéket csak az összes többi vezeték bekötése után csatlakoztassa.
- A piros vezetéket ahhoz a +12 V-os csatlakozási ponthoz csatlakoztassa, mely áramot kap, ha az indítókulcs félig van elfordítva (ACC-pozíció).
- **Az összes földelővezetéket közös földelőponthoz csatlakoztassa.**

# Соединения

## Предостережение

- Данный прибор сконструирован только для эксплуатации на минусе с постоянным напряжением 12 В.
- Перед подключением отсоедините заземляющую клемму автомобильного аккумулятора для предотвращения короткого замыкания.
- Желтый и красный сетевые провода подсоединяйте только после того, как все остальные провода подсоединены.
- Красный сетевой провод подключайте к положительной клемме 12 В, которая находится под напряжением, когда ключ зажигания в промежуточной позиции.
- **Все заземляющие провода соедините с подходящей точкой на массе.**

## Connection Diagram

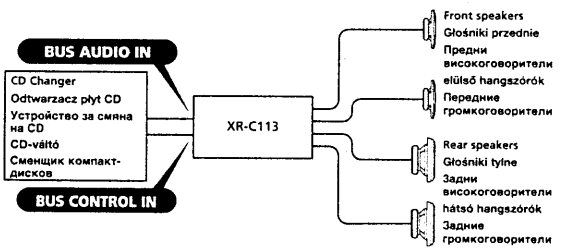
## Schemat wykonania podłączeń

## Диаграма за свързване

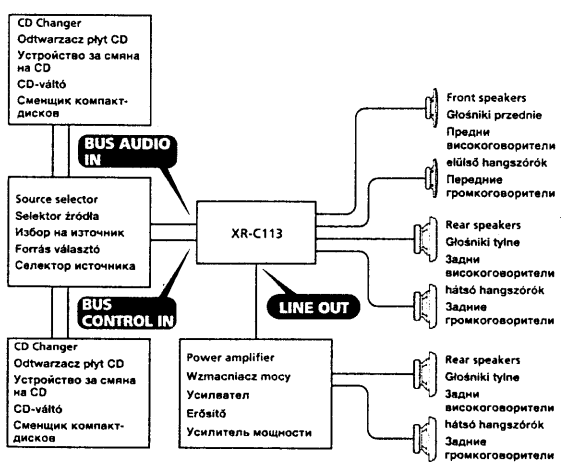
## Csatlakoztatási vázlat

## Диаграмма соединений

**Example 1/Przykład nr 1/Пример 1/1. példa/Пример 1**




**Example 2/Przykład 2/Пример 2/2. példa/Пример 2**




*For connecting two changers, the source selector XA-C30 (optional) and the BUS cable RC-61 (1 m) or RC-62 (2 m) (optional) are necessary.*

*Aby połączyć dwa odtwarzacze niezbędne są następujące elementy: selektor źródła XA-C30 (opcja), kabel wtykowy RC-61 typu BUS (1 m) lub RC-62 (2 m).*

*За свързване на две устройства за смяна на компакт дискове са необходими устройство за избор на източник XA-C30 (доставя се допълнително) и BUS кабел RC-61 (1 м) или RC-62 (2 м) (доставят се също допълнително).*

*Ha 2 CD-váltót csatlakoztat, használja az XA-C30 cikkszámú forrásválasztót, valamint az (1 m-es) RC-61, vagy (2 m-es) RC-62 cikkszámú BUS vezetéket. A forrásválasztó és a BUS vezeték nem tartozik a készülék alaptartozékai közé.*

*Для подключения двух сменщиков необходимы селектор источников XA-C30 (дополнительная принадлежность) и BUS-кабель RC-61 (1 м) или RC-62 (2 м) (дополнительная принадлежность).*

***Notes on the control leads***

- *The power antenna control lead (blue/white striped) supplies +12 V DC when you turn on the unit.*
- *A power antenna without relay box cannot be used with this unit.*

***Memory hold connection***

*When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key is turned off.*

***Notes on speaker connection***

- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.*
- *Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers. Therefore, be sure to connect passive speakers to these terminals.*

***Uwagi na temat przewodów zasilania***

- *Przewód zasilania anteny automatycznej (W niebiesko-białe paski) dostarcza +12V DC po włączeniu radia lub.*
- *Do niniejszego urządzenia nie można używać anteny automatycznej bez skrzynki przekaźnikowej.*

***Zasilanie pamięci***

*Jeżeli podłączyło się żółty wejściowy przewód zasilający, obwód pamięci będzie zawsze zasilany nawet po wyłączeniu stacyjki.*

***Uwagi odnośnie podłączania głośników***

- *Przed podłączeniem głośników należy wyłączyć radio.*
- *Proszę stosować głośniki o impedancji 4 do 8 omów i o odpowiedniej obciążalności mocowej, gdyż w innym przypadku może dojść do ich uszkodzenia.*
- *Nie należy podłączać przewodów układu głośników do podwozia samochodu, a przyłączy głośnika prawego nie łączyć z przyłączami głośnika lewego.*
- *Nie należy podłączać głośników równolegle.*
- *Nie podłączać do urządzenia głośników aktywnych (z wbudowanymi wzmacniaczami), może to bowiem doprowadzić do ich uszkodzenia. Proszę podłączać wyłącznie głośniki pasywne.*

***Забележки по проводниците за управление***

- *След включване на апарата, проводникът за управление на автоматичната антена (на вериги синьо/бяло) подава постоянен ток +12 V.*
- *Автоматична антена без релейна кутия не може да бъде използвана с този апарат.*

***Свързване за поддържане на паметта***

*Когато е свързан жълтият захранващ проводник, към интегралната схема на паметта ще се подава винаги ток, дори когато ключът за запалването е в положение изключено.*

***Забележки по свързването на високоговорителите***

- *Преди свързване на високоговорителите, изключете апарата*
- *Използвайте високоговорители със съпротивление от 4 до 8 ома и със съответстваща мощност за поддържане на захранването. В противен случай, високоговорителите могат да се повредят.*
- *Не свързвайте изводите за високоговорителите с шасито на автомобила, както и не свързвайте извода за десния високоговорител с този на левия високоговорител.*
- *Не се опитвайте да свързвате високоговорителите успоредно.*
- *Не свързвайте в никакъв случай активни високоговорители (с вградени усилватели) към изводите за високоговорителите на апарата. В противен случай ще повредите активните високоговорители. Ето защо е необходимо да се уверите, че свързвате пасивни високоговорители към тези изводи.*

***Tudnivalók a vezérlővezetékekről***

- *A motoros antenna (kék/fehér csíkos) vezérlővezetéke +12 V egyenfeszültséget kap, ha bekapcsolja a készüléket.*
- *Ha a készülékhez motoros antennát csatlakoztat, úgy kizárólag relédobozzal felszerelt motoros antennát használjon.*

***Memóriafenntartás***

*Ha csatlakoztatja a sárga tápvezetéket, úgy folyamatosan feszültség alatt marad a memória áramkör, még akkor is, ha kikapcsolja a gyújtást.*

***Tudnivalók a hangszórók csatlakoztatásáról***

- *Kenjük kapcsolja ki a készüléket a hangszórók csatlakoztatása előtt.*
- *4-8 ohm impedanciájú, megfelelő teljesítményű hangszórókat használjon, ellenkező esetben ugyanis előfordulhat, hogy a hangszórók károsodnak.*
- *Ne csatlakoztassa a hangszórókat az autó fém szerkezetéhez és ne csatlakoztassa a jobb hangszórót a bal hangszóróhoz.*
- *A hangszórókat semmi esetre se csatlakoztassa párhuzamosan.*
- *Ne csatlakoztasson aktív (beépített erősítővel felszerelt) hangszórókat a készülékhez, ellenkező esetben ugyanis károsodhatnak az aktív hangszórók. A készülékhez csak passzív hangszórókat szabad csatlakoztatni.*

***Примечания по управляющим проводам***

- *Если вы Включили прибор, провод, управляющий питанием антенны (голубой в белую полоску) подает постоянное напряжение +12 В.*
- *Электрическая антенна без коробки реле не может быть использована с данным прибором.*

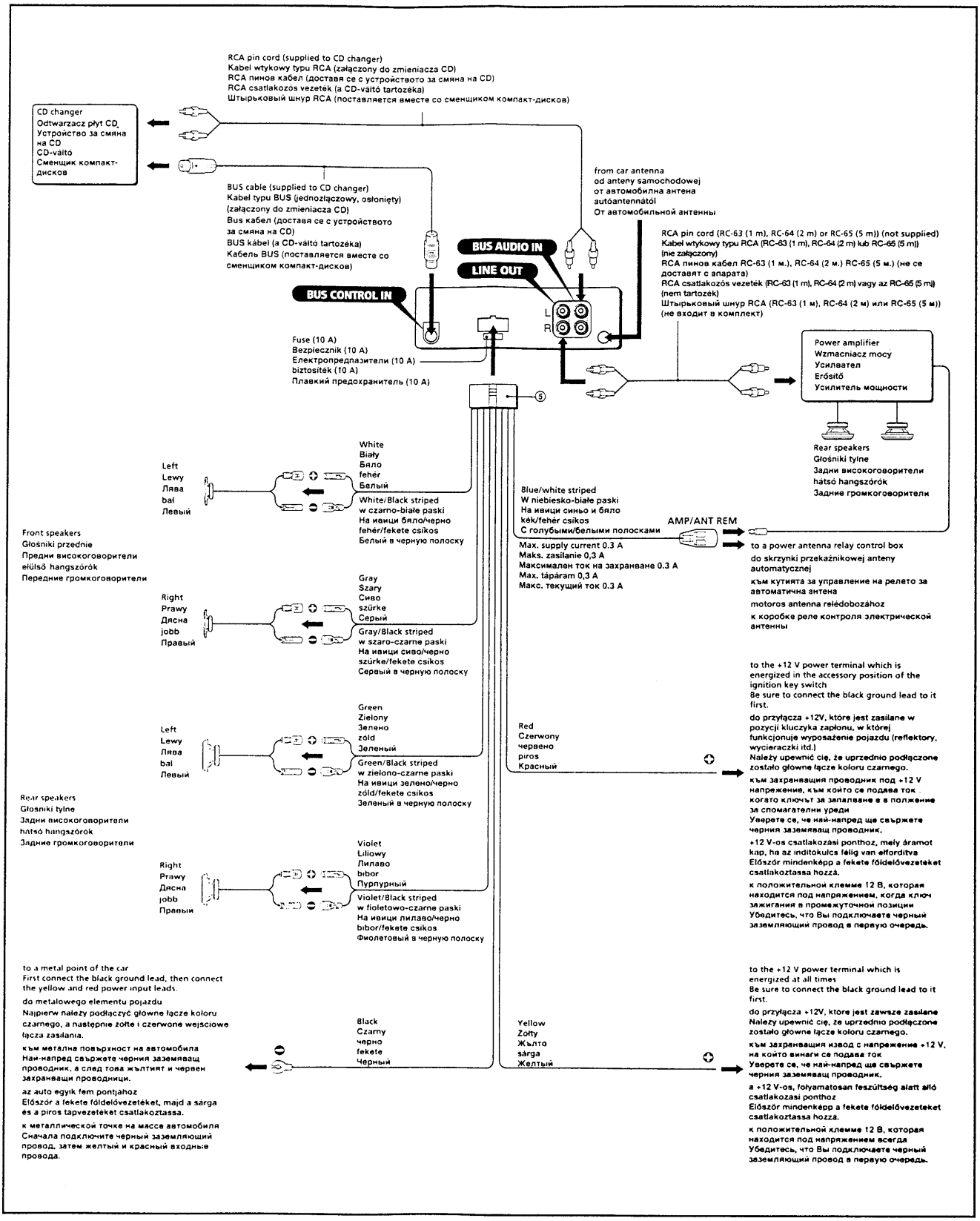
***Соединение поддержки памяти***

*Если желтый сетевой провод подключен, питание будет подаваться для поддержки памяти всегда, даже при выключенном зажигании.*

***Примечания по подключению громкоговорителей***

- *Перед подключением громкоговорителей выключите прибор.*
- *Используйте громкоговорители с сопротивлением от 4 до 8 Ом и с адекватной мощностью. Иначе громкоговорители могут быть повреждены.*
- *Не подсоединяйте клеммы громкоговорителей на массу и не соединяйте клеммы правых громкоговорителей с клеммами левых.*
- *Не пытайтесь подключить громкоговорители параллельно.*
- *Не подключайте активные громкоговорители (со встроенным усилителем) к клеммам громкоговорителей на приборе. Это может повредить активные громкоговорители. Поэтому убедитесь, что подключаете пассивные громкоговорители к данным клеммам.*

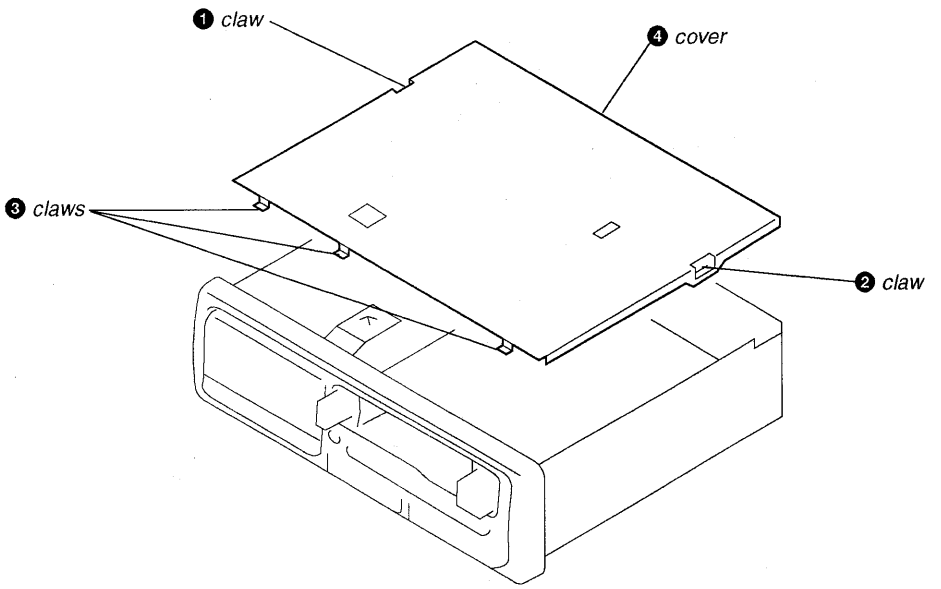
## Connections Example | Przykład podłączenia | Примери за свързване | Csatlakoztatási példák | Соединения в примере


RCA pin cord (supplied to CD changer)
Kabel wtykowy typu RCA (załączony do zmieniacza CD)
RCA пинов кабел (доставя се с устройството за смяна на CD)
RCA csatlakozós vezeték (a CD-váltó tartozéka)
Штырьковый шнур RCA (поставляется вместе со сменщиком компакт-дисков)
CD changer
Odtwarzacz płyt CD
Устройство за смяна на CD
CD-váltó
Сменщик компакт-дисков
BUS cable (supplied to CD changer)
Kabel typu BUS (jednozłączowy, osłonięty) (załączony do zmieniacza CD)
Bus кабел (доставя се с устройството за смяна на CD)
BUS kábel (a CD-váltó tartozéka)
Кабель BUS (поставляется вместе со сменщиком компакт-дисков)
from car antenna
od anteny samochodowej
от автомобилна антена
autóantennától
От автомобильной антенны
BUS AUDIO IN
LINE OUT
BUS CONTROL IN
L
R
RCA pin cord (RC-63 (1 m), RC-64 (2 m) or RC-65 (5 m)) (not supplied)
Kabel wtykowy typu RCA (RC-63 (1 m), RC-64 (2 m) lub RC-65 (5 m)) (nie załączony)
RCA пинов кабел RC-63 (1 м.), RC-64 (2 м.) RC-65 (5 м.) (не се доставят с апарата)
RCA csatlakozós vezeték (RC-63 (1 m), RC-64 (2 m) vagy az RC-65 (5 m)) (nem tartozék)
Штырьковый шнур RCA (RC-63 (1 м), RC-64 (2 м) или RC-65 (5 м)) (не входит в комплект)
Fuse (10 A)
Bezpiecznik (10 A)
Електропредпазители (10 A)
biztosíték (10 A)
Плавкий предохранитель (10 A)
Power amplifier
Wzmacniacz mocy
Усилвател
Erősítő
Усилитель мощности
Rear speakers
Głośniki tylne
Задни високоговорители
hátsó hangszórók
Задние громкоговорители
Front speakers
Głośniki przednie
Предни високоговорители
elülső hangszórók
Передние громкоговорители
Left
Lewy
Лява
bal
Левый
White
Biały
Бяло
fehér
Белый
White/Black striped
w czarno-białe paski
На ивици бяло/черно
fehér/fekete csíkos
Белый в черную полоску
Right
Prawy
Дясна
jobb
Правый
Gray
Szary
Сиво
szürke
Серый
Gray/Black striped
w szaro-czarne paski
На ивици сиво/черно
szürke/fekete csíkos
Серый в черную полоску
Blue/white striped
W niebiesko-białe paski
На ивици синьо и бяло
kék/fehér csíkos
С голубыми/белыми полосками
AMP/ANT REM
Max. supply current 0.3 A
Maks. zasilanie 0,3 A
Максимален ток на захранване 0.3 A
Max. tápáram 0,3 A
Макс. текущий ток 0.3 A
to a power antenna relay control box
do skrzynki przekaźnikowej anteny automatycznej
към кутията за управление на релето за автоматична антена
motoros antenna relédobozához
к коробке реле контроля электрической антенны
Rear speakers
Głośniki tylne
Задни високоговорители
hátsó hangszórók
Задние громкоговорители
Green
Zielony
Зелено
zöld
Зеленый
Green/Black striped
w zielono-czarne paski
На ивици зелено/черно
zöld/fekete csíkos
Зеленый в черную полоску
Violet
Liliowy
Лилаво
bíbor
Пурпурный
Violet/Black striped
w fioletowo-czarne paski
На ивици лилаво/черно
bíbor/fekete csíkos
Фиолетовый в черную полоску
Red
Czerwony
червено
piros
Красный
to the +12 V power terminal which is energized in the accessory position of the ignition key switch
Be sure to connect the black ground lead to it first.
do przyłącza +12V, które jest zasilane w pozycji kluczyka zapłonu, w której funkcjonuje wyposażenie pojazdu (reflektory, wycieraczki itd.)
Należy upewnić się, że uprzednio podłączone zostało główne łącze koloru czarnego.
към захранващия проводник под +12 V напрежение, към който се подава ток , когато ключът за запалване е в положение за спомагателни уреди
Уверете се, че най-напред ще свържете черния заземяващ проводник.
+12 V-os csatlakozási ponthoz, mely áramot kap, ha az inditókulcs félig van elforditva
Először mindenképp a fekete földelővezetéket csatlakoztassa hozzá.
к положительной клемме 12 В, которая находится под напряжением, когда ключ зажигания в промежуточной позиции
Убедитесь, что Вы подключаете черный заземляющий провод в первую очередь.
to a metal point of the car
First connect the black ground lead, then connect the yellow and red power input leads.
do metalowego elementu pojazdu
Najpierw należy podłączyć główne łącze koloru czarnego, a następnie żółte i czerwone wejściowe łącza zasilania.
към метална повърхност на автомобила
Най-напред свържете черния заземяващ проводник, а след това жълтият и червен захранващи проводници.
az auto egyik fem pontjához
Először a fekete földelővezetéket, majd a sárga és a piros tápvezetéket csatlakoztassa.
к металлической точке на массе автомобиля
Сначала подключите черный заземляющий провод, затем желтый и красный входные провода.
Black
Czarny
черно
fekete
Черный
Yellow
Żółty
Жълто
sárga
Желтый
to the +12 V power terminal which is energized at all times
Be sure to connect the black ground lead to it first.
do przyłącza +12V, które jest zawsze zasilane
Należy upewnić się, że uprzednio podłączone zostało główne łącze koloru czarnego.
към захранващия извод с напрежение +12 V, на който винаги се подава ток
Уверете се, че най-напред ще свържете черния заземяващ проводник.
a +12 V-os, folyamatosan feszültség alatt álló csatlakozási ponthoz
Először mindenképp a fekete földelővezetéket csatlakoztassa hozzá.
к положительной клемме 12 В, которая находится под напряжением всегда
Убедитесь, что Вы подключаете черный заземляющий провод в первую очередь.

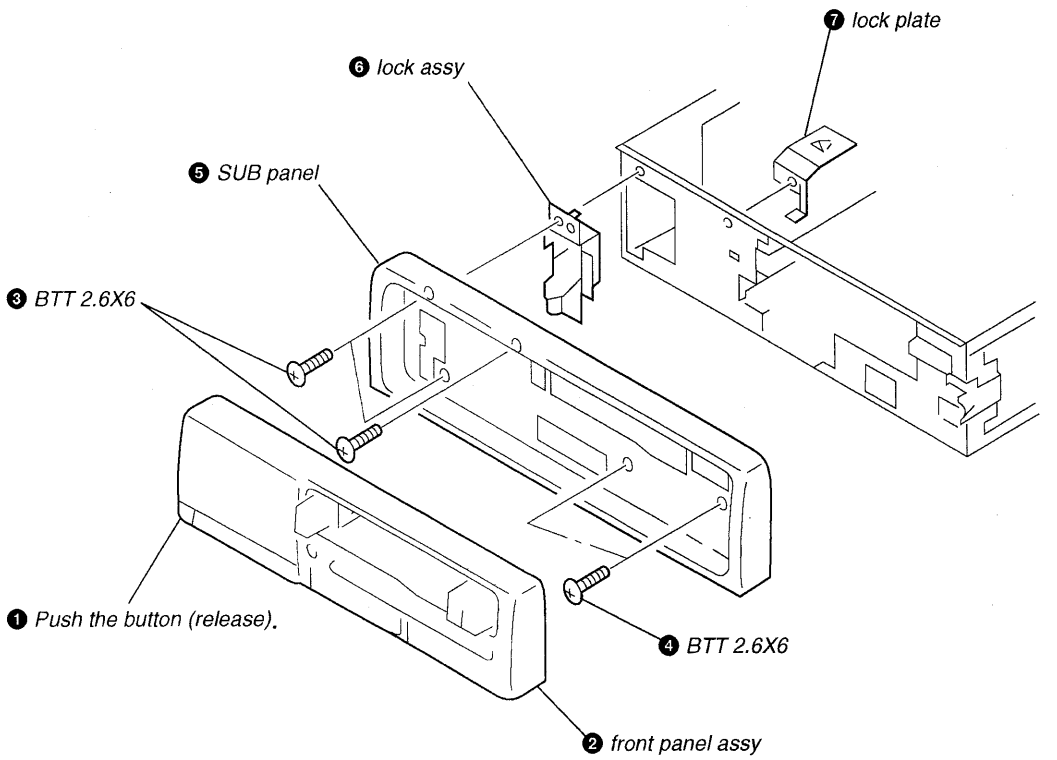
# SECTION 2
# DISASSEMBLY

**Note :** Follow the disassembly procedure in the numerical order given.

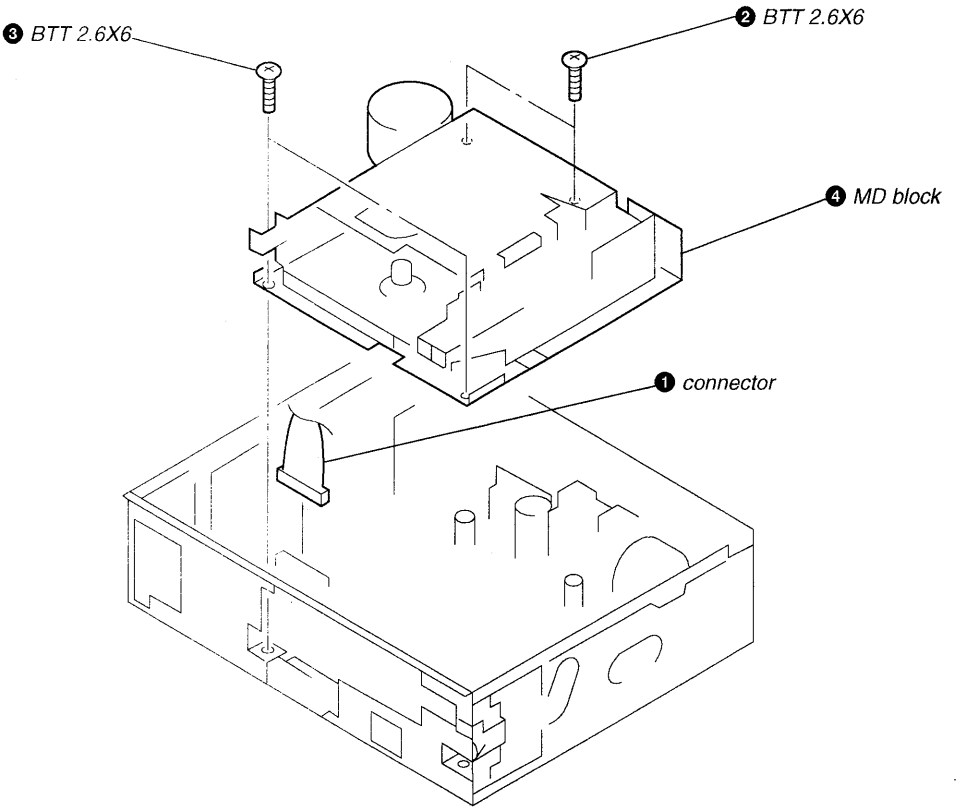
## 2-1. COVER



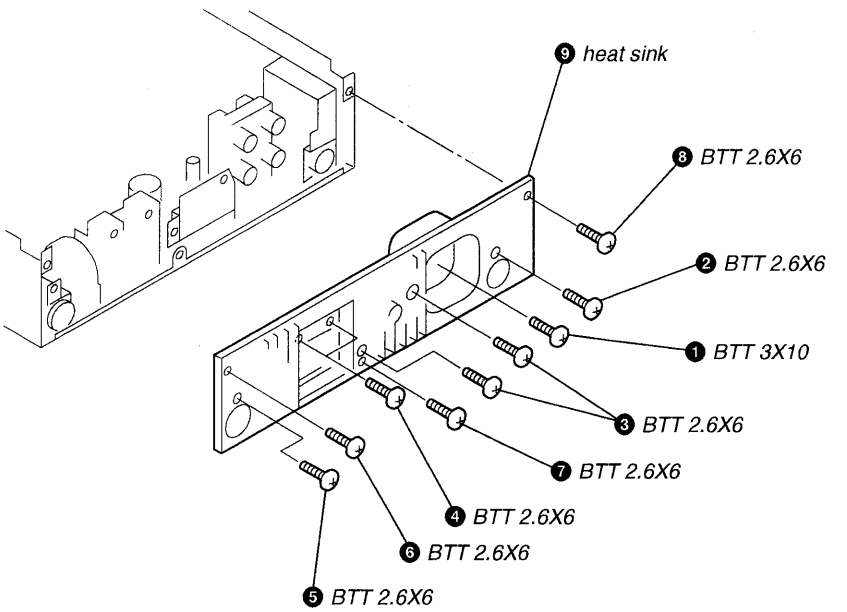

## 2-2. LOCK ASSY



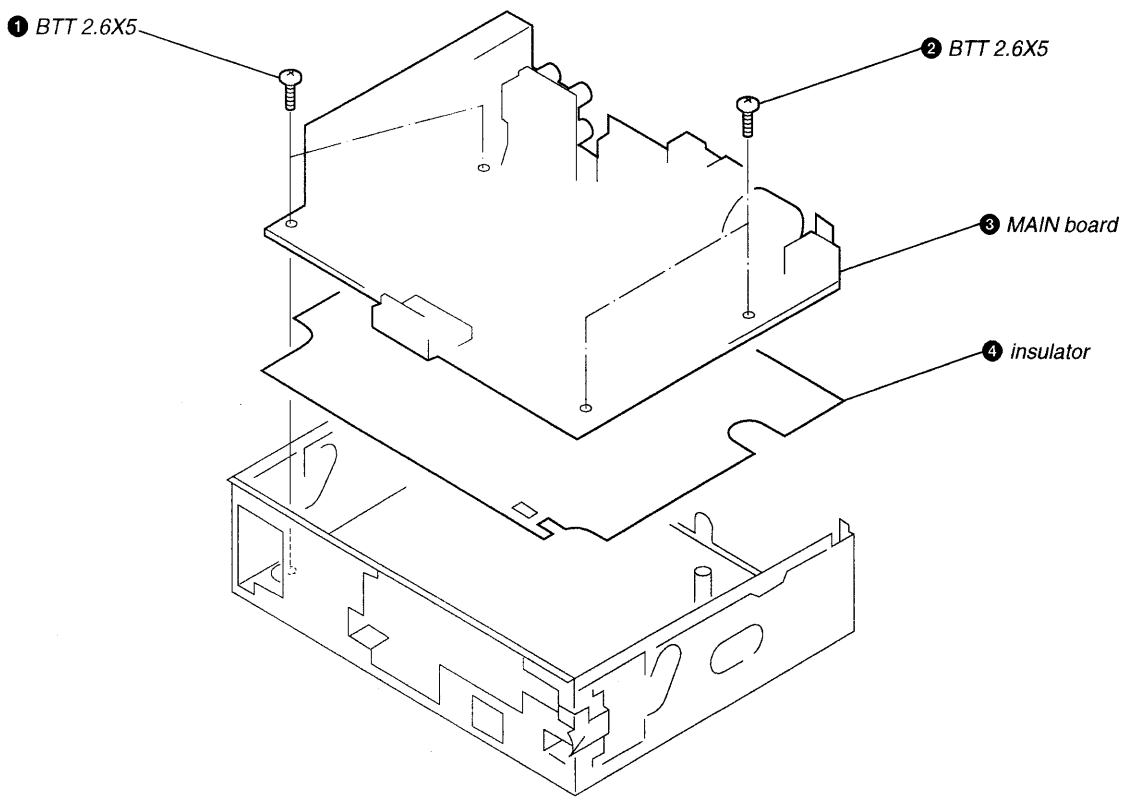
## 2-3. MD BLOCK




## 2-4. HEAT SINK



## 2-5. MAIN BOARD



# SECTION 3
# MECHANICAL ADJUSTMENTS

## PRECAUTION

1. Wipe the following components with an absorbent cotton cloth moistened with alcohol before adjustment :
   PB head　　Pinch roller
   Idler　　Rubber belt
   Capstan
2. Demagnetize the PB head using a head demagnetizer.
3. Be careful not to use a magnetized screwdriver.
4. After the adjustment is completed, lock the adjustment parts using screws.
5. Unless otherwise specified, make adjustments at the specified voltage (14.4 V).

## Torque Measurement

| Mode | Torque Meter | Meter Reading |
|---|---|---|
| FWD | CQ-102C | 25 – 55 g•cm (0.35 – 0.76 oz•inch) |
| FWD Back Tension | | 1.5 – 4 g•cm (0.02 – 0.06 oz•inch) |
| REV | CQ-102RC | 25 – 55 g•cm (0.35 – 0.76 oz•inch) |
| REV Back Tension | | 1.5 – 4 g•cm (0.02 – 0.06 oz•inch) |
| FF, REW | CQ-201B | 50 – 150 g•cm (0.69 – 2.08 oz•inch) |

# SECTION 4
# ELECTRICAL ADJUSTMENTS

**DECK SECTION** **0 dB = 0.775 V**

1. The adjustments should be performed in the order given in this service manual.
2. The adjustments should be performed for both L-CH and R-CH.

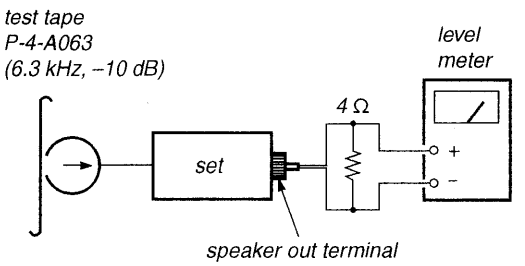
## Test Tape

| Type | Signal | Used for |
|---|---|---|
| P-4-A063 | 6.3 kHz, –10 dB | head azimuth adjustment |
| WS-48A | 3 kHz, 0 dB | tape speed adjustment |

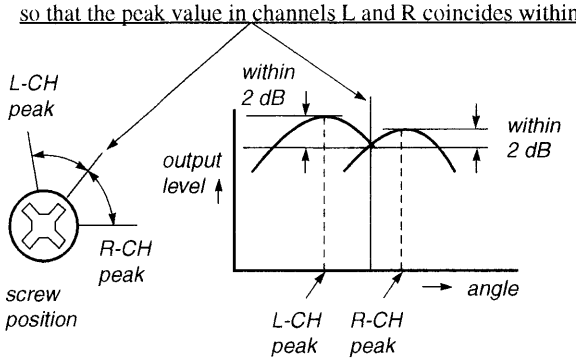
## PB Head Azimuth Adjustment

**Procedure :**

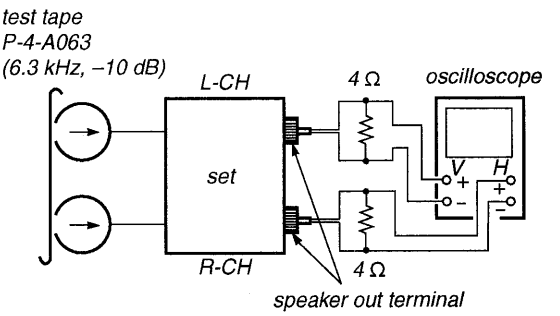
1. Put the set into the FWD PB mode.

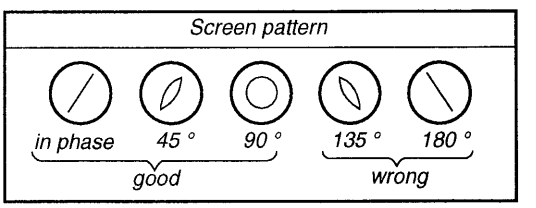



2. Turn the screw and check the output peak value. Adjust the screw so that the peak value in channels L and R coincides within 2 dB.



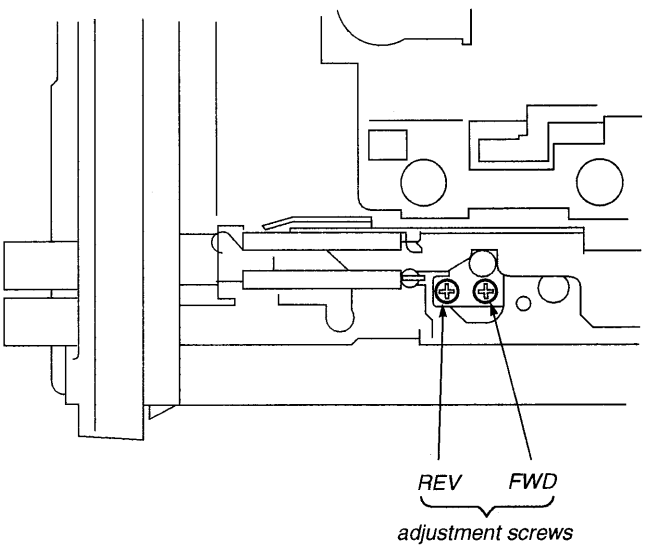

3. Check the phase in the FWD PB mode.



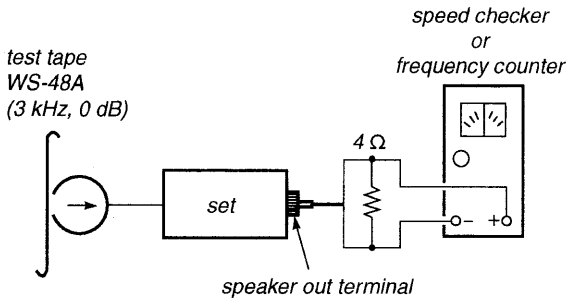

4. Repeat the above adjustment for the REV PB mode.
5. Check that output level difference between FWD PB mode and REV PB mode is within 4 dB.

**Adjustment Location :**



### Tape Speed Adjustment

**Setting :**

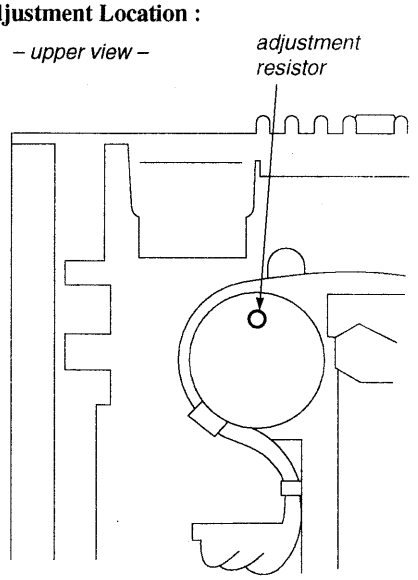



1. Put the set into the FWD PB mode.
2. Adjust adjustment resistor for inside capstan motor so that the reading on the speed checker or frequency counter becomes in specification.

**Specification :** Constant speed

| Speed checker | Frequency counter |
|---|---|
| – 1.5 to + 0.5 % | 2,955 to 3,015 Hz |

**Adjustment Location :**




## TUNER SECTION | 0 dB = 1 µV

**Cautions during repair**

When the tuner assy is defective, replace it by a new one because its internal block is difficult to repair.

### TEST MODE

This set have the test mode function. In the test mode, FM Auto Stop Level and MW Auto Stop Level adjustments can be performed easier than it in ordinary procedure.

<Set the Test Mode>

1. Set the "OFF" mode.
2. Push the preset [1] button.
3. Press the [OFF] button while pressing the [TUNER] button. (Then the display indicates all lights, the test mode is set.)

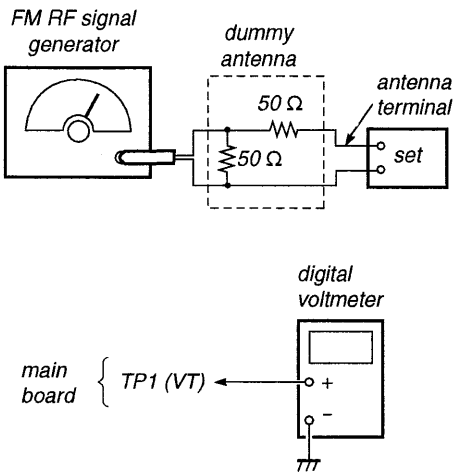
<Release the Test mode>

1. Push the [OFF] button.

### FM VT Adjustment

**Setting :**

TUNER button : FMI




**Procedure :**

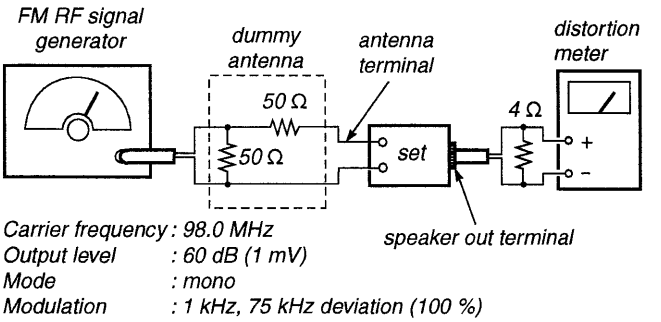
1. Tune the set to 65 MHz.
2. Adjust L104 so that the reading on the digital voltmeter becomes 1.25 ± 0.05 V.

**Adjustment Location :** See page 16.

### FM DET Adjustment

**Setting :**

TUNER button : FMI




*Carrier frequency : 98.0 MHz*
*Output level : 60 dB (1 mV)*
*Mode : mono*
*Modulation : 1 kHz, 75 kHz deviation (100 %)*

**Procedure :**

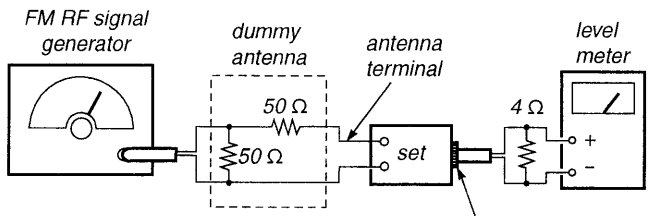
1. Tune the set to 98.0 MHz.
2. Adjust L111 so that the reading on the distortion meter becomes to minimum.

**Adjustment Location :** See page 16.

### FM MIX Adjustment

**Setting :**

TUNER button : FMI




*Carrier frequency : 98.0 MHz*
*Output level : 10 dB (3.2 μV)*
*Mode : mono*
*Modulation : 1 kHz, 75 kHz deviation (100 %)*

**Procedure:**

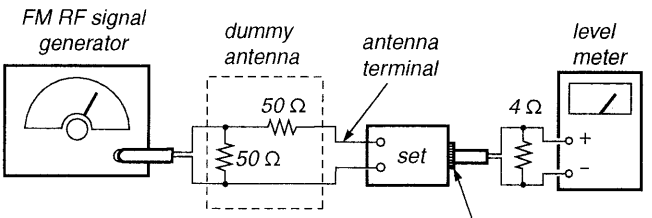
1. Tune the set to 98.0 MHz.
2. Adjust L103 so that the reading on the level meter becomes to maximum.

**Adjustment Location :** See page 16.

### FM Tracking Adjustment

**Setting :**

TUNER button : FMI




*Carrier frequency : 87.5 MHz*
*Output level : 10 dB (3.2 μV)*
*Mode : mono*
*Modulation : 1 kHz, 75 kHz deviation (100 %)*

**Procedure :**

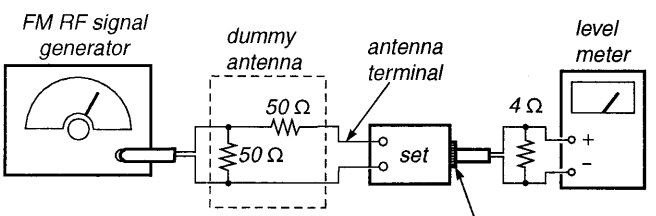
1. Tune the set to 87.5 MHz.
2. Adjust L100 and L102 so that the reading on the level meter becomes to maximum.

**Adjustment Location :** See page 16.

### FM SEP Adjustment

**Setting :**

TUNER button : FMI




*Carrier frequency : 98.0 MHz*
*Output level : 60 dB (1 mV)*
*Mode : mono (R-CH)*
*Modulation : 1 kHz, 67.5 kHz deviation (90 %)*
*19 kHz, 7.5 kHz deviation (10 %)*

**Procedure :**

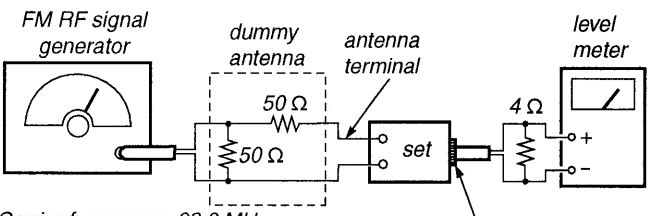
1. Tune the set to 98.0 MHz.
2. Adjust R134 so that the reading on the level meter becomes to minimum.

**Adjustment Location :** See page 16.

### FM HCC Adjustment

**Setting :**

TUNER button : FMI




*Carrier frequency : 98.0 MHz*
*Output level : 60 dB (1 mV)*
*Mode : MAIN (L + R)*
*Modulation : 10 kHz, 67.5 kHz deviation (90 %)*
*19 kHz, 7.5 kHz deviation (10 %)*

**Procedure :**

1. Tune the set to 98.0 MHz.
2. The then output level is supposing that (A) dB.
3. Change the FM RF signal generator output level to 20 dB (10 μV).
4. Adjust R138 so that the output level is (A) – 6 dB.

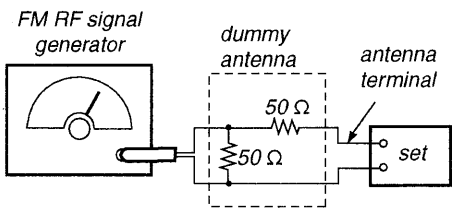
**Adjustment Location :** See page 16.

### FM Auto Stop Level Adjustment

**Note** : Be sure to perform this adjustment before "MW Auto Stop Level Adjustment".

**Setting :**

TUNER button : FMI

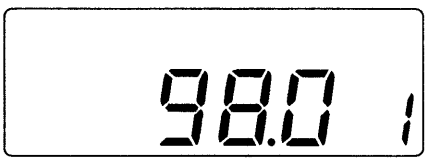



*Carrier frequency: 98.0 MHz*
*Output level : 22 dB (12.6 µV)*
*Mode : mono*
*Modulation : 1 kHz, 75 kHz deviation (100 %)*

**Procedure :**

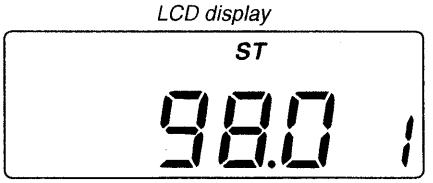
1. Set to the test mode. (See page 12.)
2. Push the [SEL] button and set to MODE1.

*LCD display*




3. Adjust R131 like to appear the ST indicator of LCD display.

*LCD display*

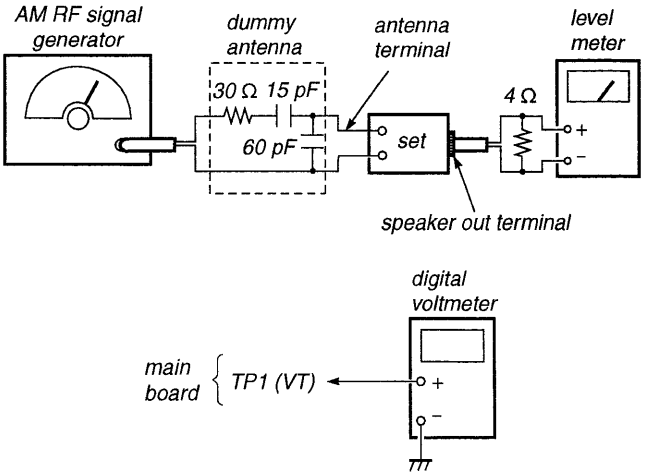



**Adjustment Location :** See page 16.

### MW VT Adjustment

**Setting :**

TUNER button : MW




**Procedure :**

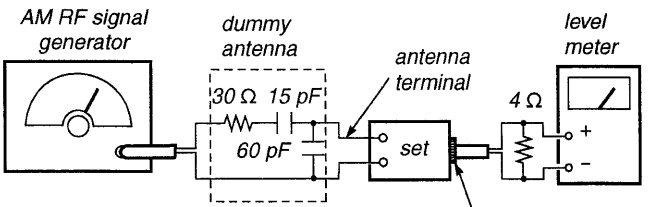
1. Tune the set to 531 kHz.
2. Adjust L108 so that the reading on the digital voltmeter becomes 1.2 ± 0.05 V.

**Adjustment Location :** See page 16.

### MW IFT Adjustment

**Setting :**

TUNER button : MW




*Carrier frequency : 999 kHz*
*Output level : 20 dB (10 µV)*
*Modulation : 400 Hz, 22.5 kHz deviation (30 %)*

**Procedure :**

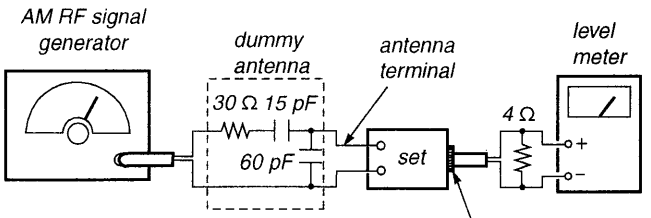
1. Tune the set to 999 kHz.
2. Adjust L110 so that the reading on the level meter becomes to maximum.

**Adjustment Location :** See page 16.

### MW Tracking Adjustment

**Setting :**

TUNER button : MW




*Carrier frequency : 612 kHz*
*Output level : 20 dB (10 μV)*
*Modulation : 400 Hz, 22.5 kHz deviation (30 %)*

**Procedure :**

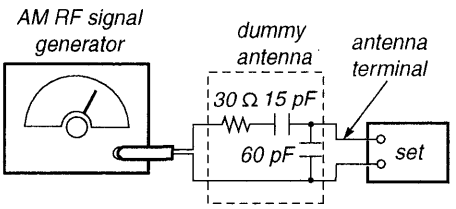
1. Tune the set to 612 kHz.
2. Adjust L107 so that the reading on the level meter becomes to maximum.

**Adjustment Location :** See page 16.

### MW Auto Stop Level Adjustment

**Setting :**

TUNER button : MW

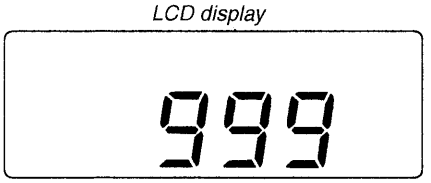



*Carrier frequency: 999 kHz*
*Output level : 33 dB (44.7 μV)*
*Modulation : 400 Hz, 22.5 kHz deviation (30 %)*

**Procedure :**

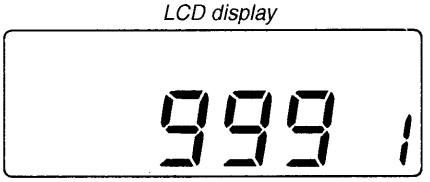
1. Set to the test mode. (See page 12.)
2. Push the [TUNER] button and set to MW.

*LCD display*



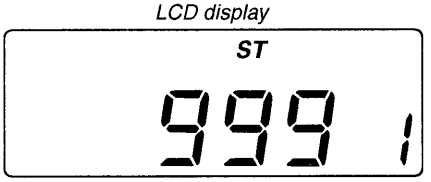

3. Push the [SEL] button and set to MODE1.

*LCD display*




4. Adjust R141 like to appear the ST indicator of LCD display.

*LCD display*

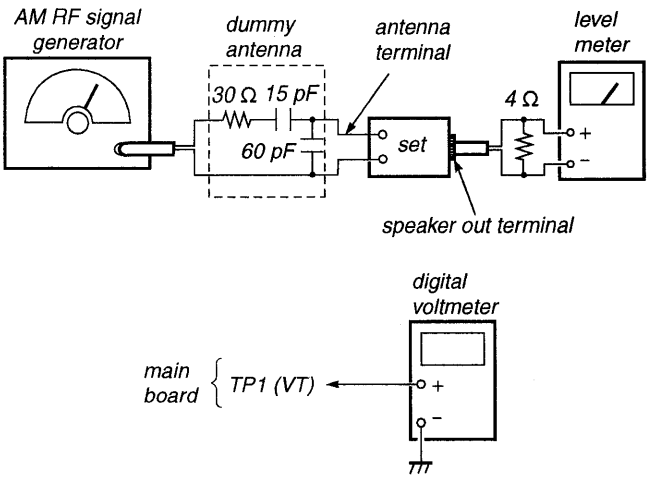



**Adjustment Location :** See page 16.

### LW VT Adjustment

**Setting :**

TUNER button : LW




**Procedure :**

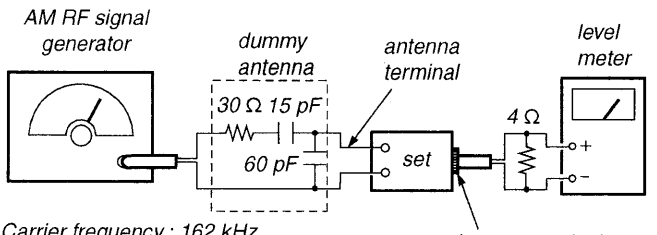
1. Tune the set to 153 kHz.
2. Adjust L109 so that the reading on the digital voltmeter becomes 2.2 ± 0.05 V.

**Adjustment Location :** See page 16.

### LW Tracking Adjustment

**Setting :**

TUNER button : LW



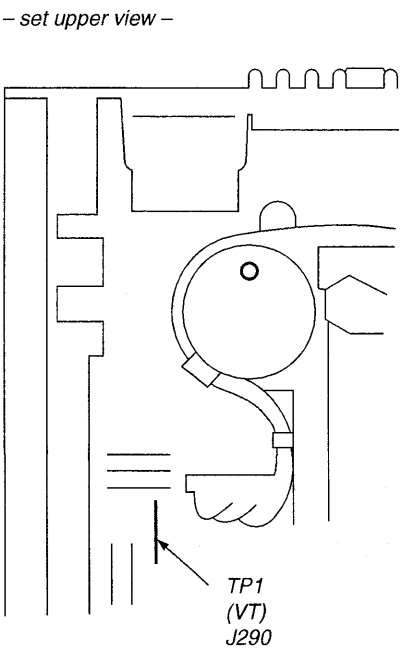

*Carrier frequency : 162 kHz*
*Output level : 20 dB (10 µV)*
*Modulation : 400 Hz, 22.5 kHz deviation (30 %)*

**Procedure :**

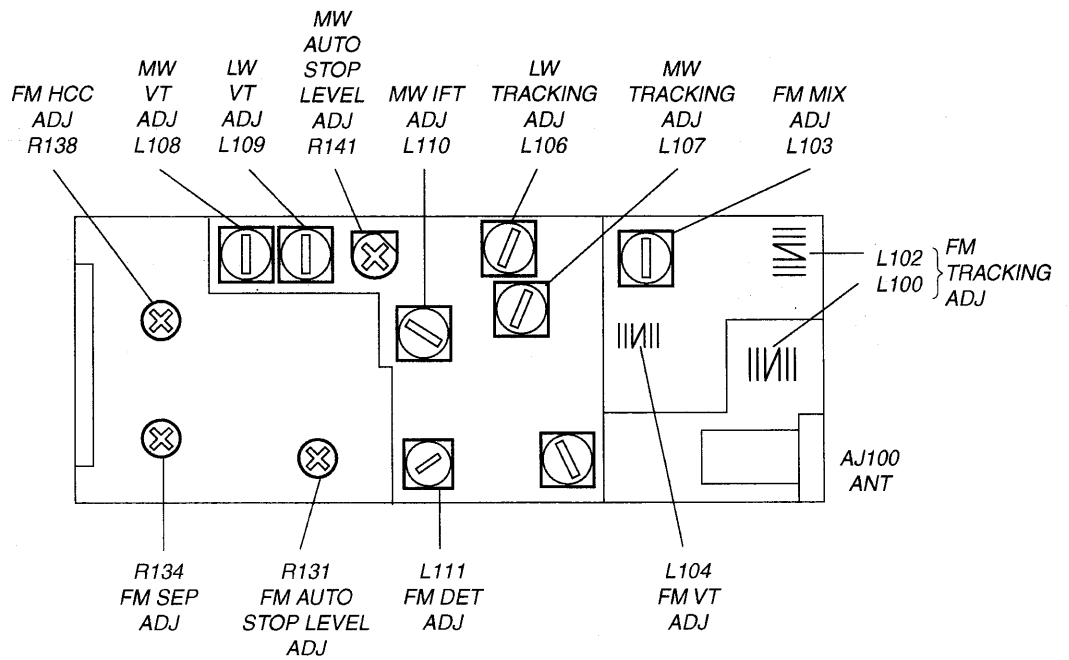
1. Tune the set to 162 kHz.
2. Adjust L106 so that the reading on the level meter becomes to maximum.

**Adjustment Location :** ET201

**Measurement Point :** main board (component side)




**Adjustment Location :** ET201 (tuner assy) – component side –



# SECTION 5
# DIAGRAMS

## 5-1. IC PIN DESCRIPTION

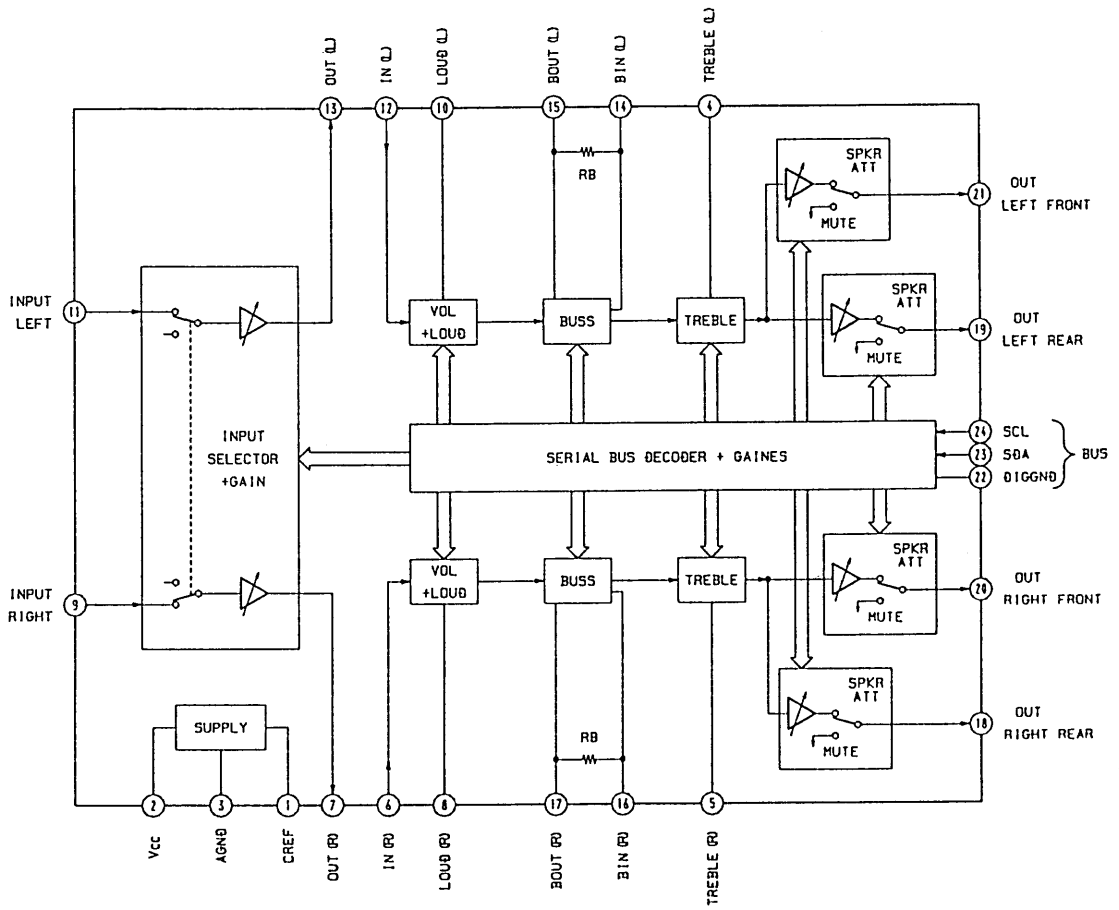
### • IC701 LC72356-9241 (System Controller)

| Pin No. | Pin Name | I/O | Pin Description |
|---|---|---|---|
| 1 | XIN | I | 4.5 MHz crystal oscillator input pin |
| 2 | TEST2 | I | LSI test pin (Fixed at "L" in this set.) |
| 3 | SEEK | O | SEEK control output pin ("L" : NORMAL, "H" : SEEK) |
| 4 | FM/$\overline{\text{AM}}$ | O | BAND select output pin ("L" : AM, "H" : FM) |
| 5 | $\overline{\text{LW}}$ | O | LW band select output pin |
| 6 | LOCAL | O | LOCAL control output pin ("L" : DX, "H" : LOCAL) |
| 7 | — | O | Not used. (Connect to GND.) |
| 8 | VOL SO | O | Serial data output pin for volume. |
| 9 | VOL CK | O | Serial clock output pin for volume. |
| 10 | CDC EN | O | CD select button with/without setting pin |
| 11 | CDC SI | I | Serial data input pin for SONY BUS. |
| 12 | CDC SO | O | Serial data output pin for SONY BUS. |
| 13 | CDC CLK | O | Serial clock output pin for SONY BUS. |
| 14 | — | O | Not used. (Connect to GND.) |
| 15 | MUTE | O | Mute output pin |
| 16 | $\overline{\text{AMP MUTE}}$ | O | Audio control output pin (Mute) |
| 17 | $\overline{\text{BUS RST}}$ | O | Bus reset output pin for SONY BUS. ("L" : RESET) |
| 18 | $\overline{\text{BUS ON}}$ | O | Bus control output pin for SONY BUS. ("L" : ON) |
| 19-25 | — | O | Not used. (Open) |
| 26 | A.STBY | O | Audio control output pin |
| 27 | FOR/$\overline{\text{REV}}$ | I | Forward/reverse detection input pin ("L" : REV, "H" : FOR) |
| 28 | $\overline{\text{WIND}}$ | I | Tape Fast Forward/Rewind detection input pin ("H" : NORMAL, "L" : WIND) |
| 29 | RA/TA | I | Radio/tape mode detection input pin ("H" : RADIO, "L" : TAPE) |
| 30 | $\overline{\text{TEST}}$ | I | Test mode wake-up input pin |
| 31 | VDD | — | Power supply pin (5 V ± 5 %) |
| 32 | $\overline{\text{ACC CHK}}$ | I | Accessory detection input pin ("L" : ACC ON) |
| 33 | MOTOR | O | Motor control output pin |
| 34 | POWER ON | O | Power control output pin |
| 35 | LAMP ON | O | Illumination lamp control output pin |
| 36-43 | — | O | Not used. (Open) |
| 44 | BEEP | O | Caution alarm output pin |
| 45 | LCD CE | O | Chip enable output pin for LCD driver. |
| 46 | LCD CLK | O | Serial clock output pin for LCD driver. |
| 47 | LCD SO | O | Serial data output pin for LCD driver. |
| 48 | $\overline{\text{LCD INH}}$ | O | Display light off control output pin for LCD driver. (Normally, "L" : All light off) |
| 49 | $\overline{\text{PANEL}}$ | I | Input pin for detecting mounting of front panel. ("L" : ON, "H" : OFF) |
| 50 | OIRT EN | I | Setting input pin for East European model. |
| 51 | LW EN | I | LW band with/without select pin (Fixed at "H" in this set.) |
| 52 | SDK EN | I | Traffic information function select pin (Fixed at "L" in this set.) |
| 53 | 10k EN | I | Frequency select switch select pin (Fixed at "L" in this set.) |
| 54 | P.SEL | I | Illumination light ON/OFF select pin at Power off. (Fixed at "L" in this set.) |
| 55 | BAT CHK | I | Battery detection input pin ("H" : Battery ON) |
| 56 | $\overline{\text{RESET}}$ | I | System reset input pin |
| 57 | — | O | Not used. (Open) |
| 58 | $\overline{\text{MONO}}$ | — | Not used. (Open) |
| 59, 60 | SEL B, SEL A | O | Audio source select output pin |
| 61-63 | ADC2-ADC0 | I | Key input pin |

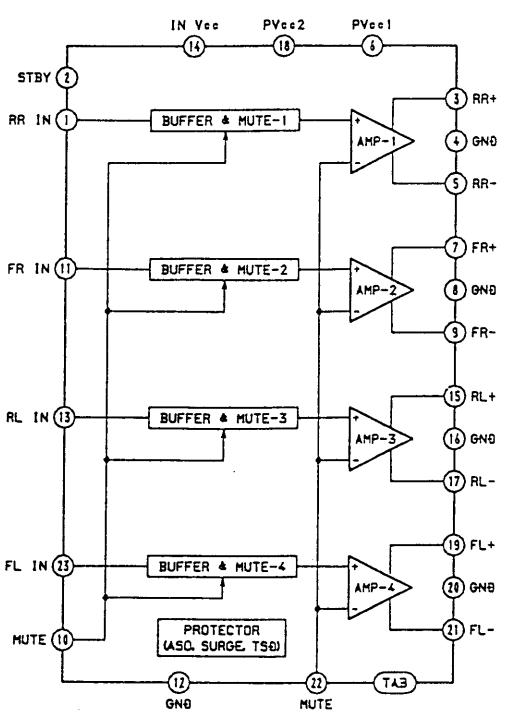
| Pin No. | Pin Name | I/O | Pin Description |
|---|---|---|---|
| 64 | — | O | Not used. (Connect to VDD.) |
| 65 | DK | I | DK signal input pin |
| 66 | SK | I | SK signal input pin |
| 67 | $\overline{\text{HOLD}}$ | I | HOLD pin (PLL and CLOCK STOP control) |
| 68 | $\overline{\text{SNS}}$ | I | Power fail detection pin (Connect to VDD.) |
| 69 | SD/ST | I | SD/stereo station detect input pin |
| 70 | IF | I | IF count input pin (FM = 10.7 MHz, AM = 450 kHz) |
| 71 | EO3 | O | 2nd PLL error output pin (Not used in this set.) |
| 72 | SUBPD | O | Sub error output pin (For High speed lock up) (Not used in this set.) |
| 73 | VDD | — | Power supply pin (5 V ± 5 %) |
| 74 | AM IN | I | AM VCO input pin |
| 75 | FM IN | I | FM VCO input pin |
| 76 | GND | — | GND |
| 77 | EO2 | O | PLL error output pin (Not used in this set.) |
| 78 | EO1 | O | PLL error output pin |
| 79 | TEST1 | I | LSI test pin (Fixed at "L" in this set.) |
| 80 | XOUT | O | 4.5 MHz crystal oscillator output pin |

• **IC Block Diagrams**

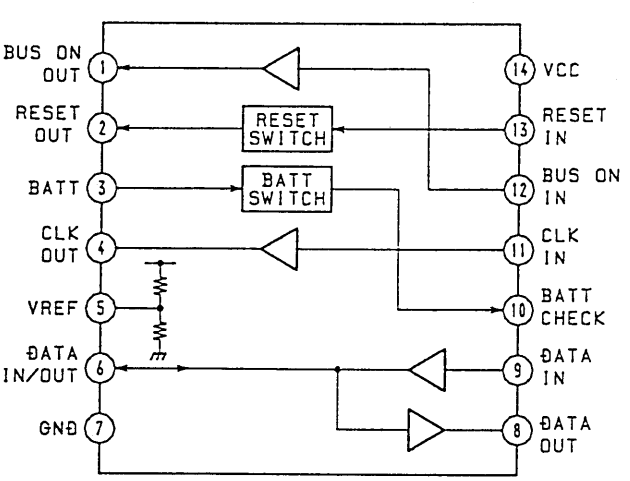
### IC401 TDA7314S




### IC501 HA13153




### IC771 MM1175XFF



## 5-2. PRINTED WIRING BOARDS

• **Semiconductor Location**

| Ref. No. | Location |
|---|---|
| D301 | F-8 |
| D501 | B-6 |
| D601 | E-2 |
| D602 | D-2 |
| D604 | D-3 |
| D606 | F-1 |
| D607 | I-4 |
| D621 | C-3 |
| D622 | B-2 |
| D711 | I-4 |
| D712 | I-5 |
| D713 | I-5 |
| D714 | I-7 |
| D715 | I-7 |
| D716 | I-6 |
| D717 | I-4 |
| D718 | I-4 |
| D719 | I-4 |
| D771 | D-1 |
| D773 | B-1 |
| D774 | C-1 |
| D775 | C-1 |
| D776 | B-1 |
| D801 | H-20 |
| D802 | H-20 |
| D803 | H-19 |
| D804 | H-19 |
| D805 | H-19 |
| IC301 | F-7 |
| IC401 | E-5 |
| IC451 | E-7 |
| IC481 | E-8 |
| IC501 | B-6 |
| IC701 | G-4 |
| IC771 | E-2 |
| IC801 | G-19 |
| Q301 | E-3 |
| Q302 | E-3 |
| Q501 | D-6 |
| Q502 | D-7 |
| Q503 | D-7 |
| Q504 | D-6 |
| Q505 | D-3 |
| Q506 | D-4 |
| Q507 | D-4 |
| Q601 | F-2 |
| Q602 | D-3 |
| Q603 | D-3 |
| Q604 | F-3 |
| Q605 | F-2 |
| Q606 | G-2 |
| Q621 | C-3 |
| Q622 | C-3 |
| Q701 | F-5 |
| Q702 | F-6 |

【MAIN BOARD】

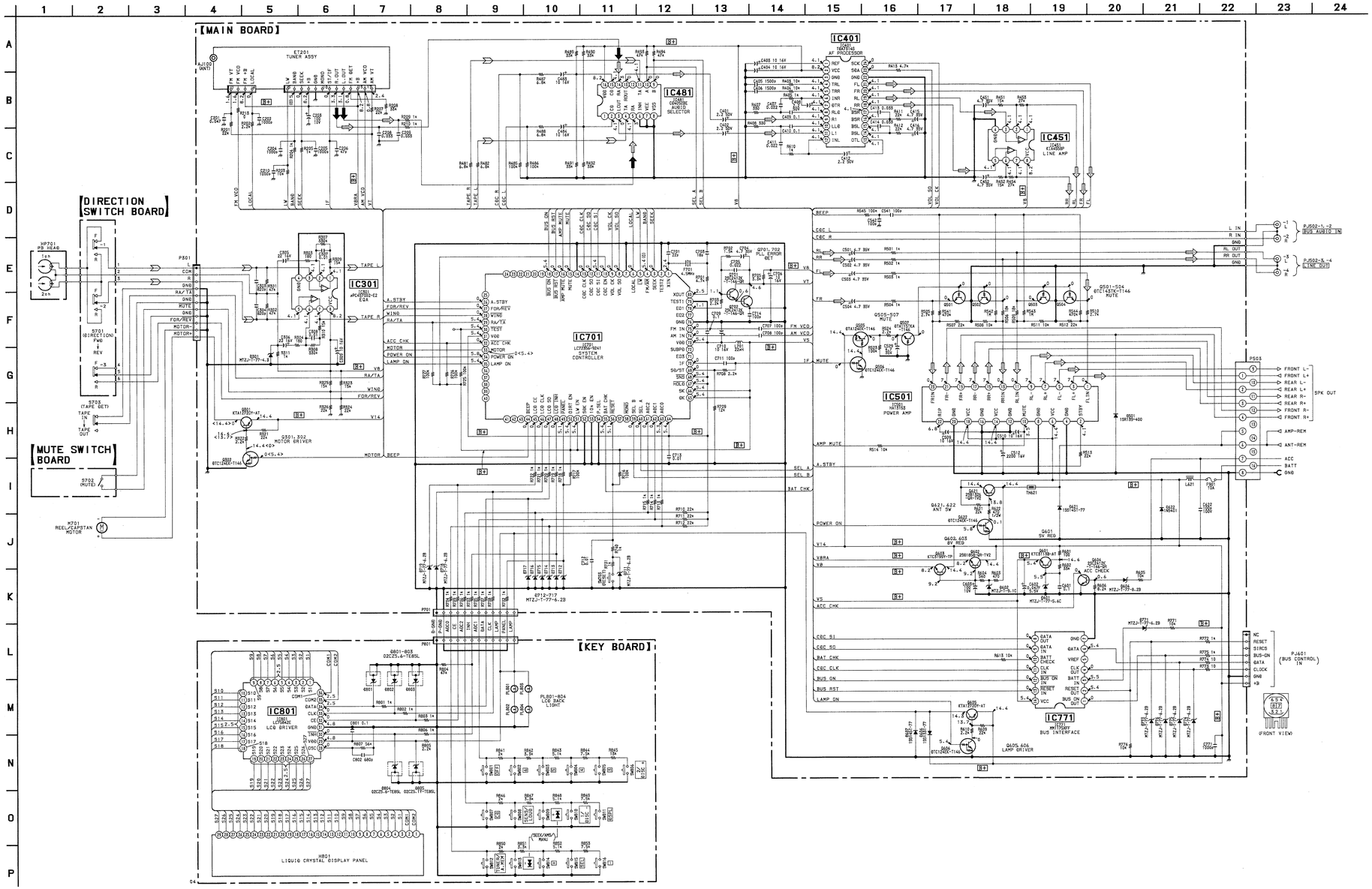
【DIRECTION SWITCH BOARD】

【MUTE SWITCH BOARD】

【KEY BOARD】

Note :
- ○— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.

5-3. SCHEMATIC DIAGRAM • Refer to page 19 for IC Block Diagrams.

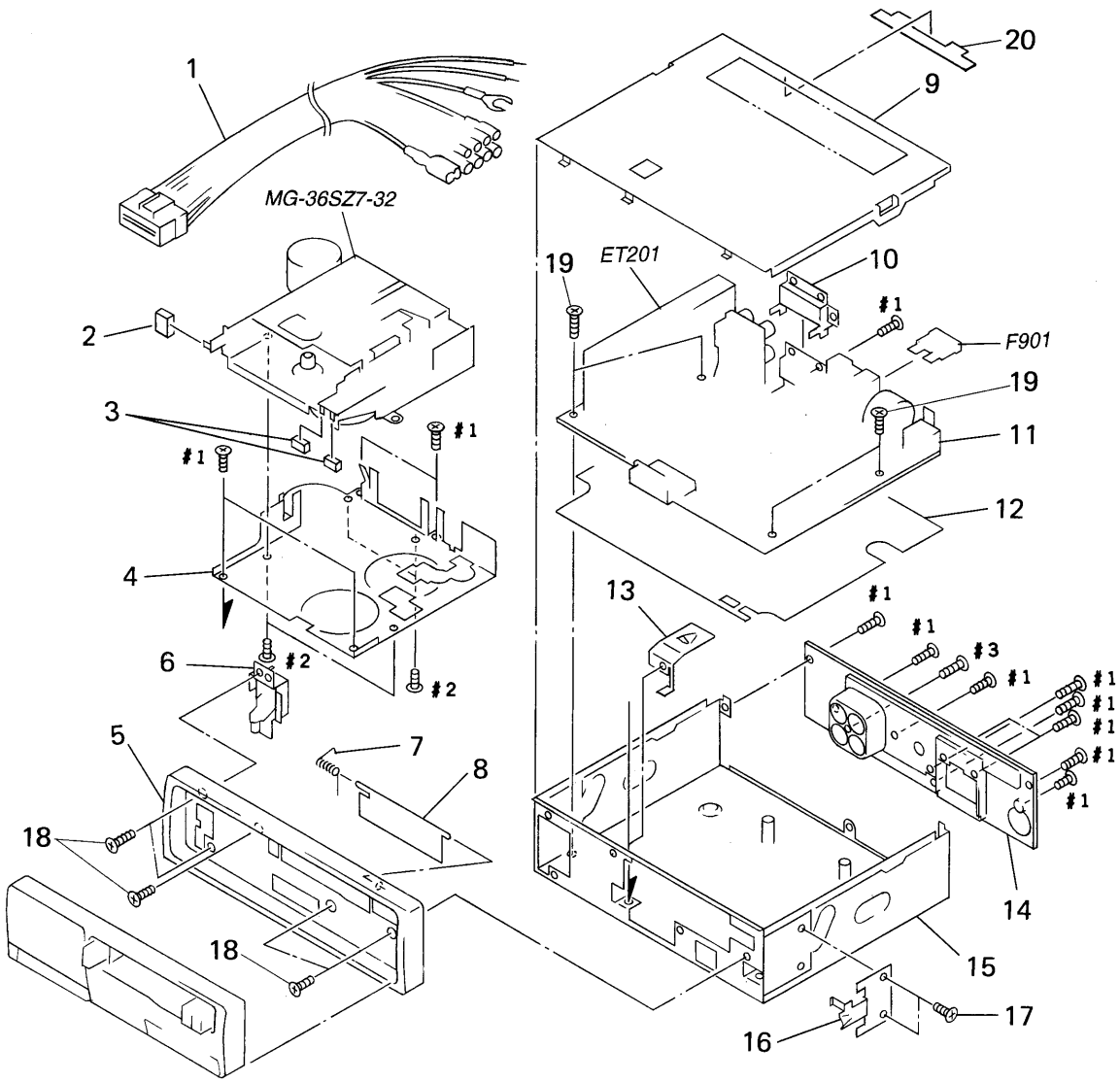


# SECTION 6
# EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

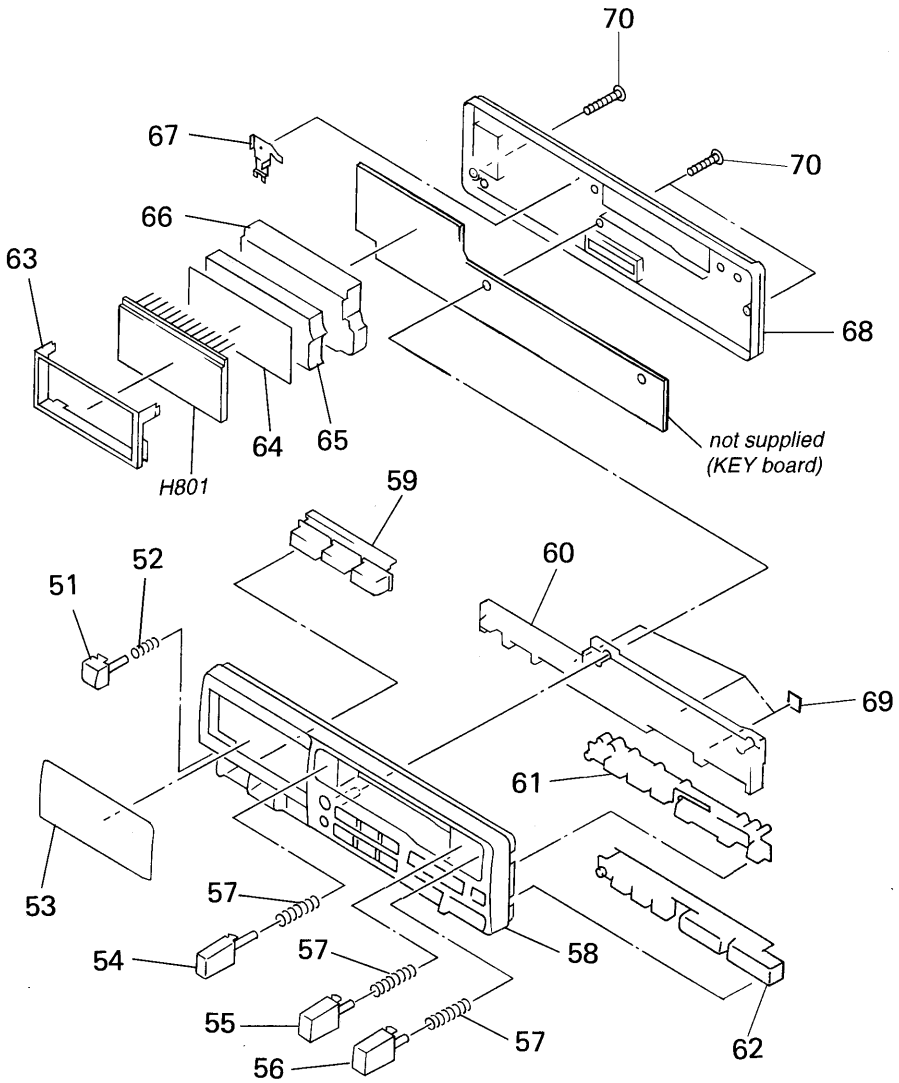
## 6-1. CHASSIS SECTION




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 1 | 1-776-207-31 | CORD (WITH CONNECTOR) (POWER) | |
| 2 | 3-937-528-01 | COVER (EJECT) | |
| 3 | 3-937-529-01 | COVER (FF/REW) | |
| * 4 | 3-937-531-01 | BRACKET (MD) | |
| 5 | 3-937-525-01 | PANEL, SUB | |
| 6 | X-3372-433-1 | LOCK ASSY | |
| 7 | 3-915-720-01 | SPRING (C DOOR), TORSION | |
| 8 | 3-937-526-01 | DOOR, CASSETTE | |
| 9 | 3-937-523-01 | COVER | |
| * 10 | 3-937-533-01 | BRACKET (IC) | |
| * 11 | A-3294-147-A | MAIN BOARD, COMPLETE | |
| * 12 | 3-937-532-01 | INSULATOR | |
| 13 | 3-916-055-01 | PLATE, LOCK | |
| * 14 | 3-937-530-01 | HEAT SINK | |
| * 15 | X-3372-423-1 | CHASSIS ASSY | |
| 16 | 3-916-056-01 | PLATE (R), LOCK | |
| 17 | 3-344-561-21 | SCREW (M4X4) | |
| 18 | 3-916-975-11 | SCREW (2.6X6) (BZN), +BTT | |
| 19 | 3-916-976-01 | SCREW (2.6X5) (CZN), +BTT | |
| * 20 | 3-939-569-01 | SHEET (VIBRATION PROOF) | |
| * ET201 | A-3294-148-A | TUNER ASSY | |
| F901 | 1-533-330-11 | FUSE (BLADE TYPE) (AUTO FUSE) 10A | |

## 6-2. FRONT PANEL SECTION

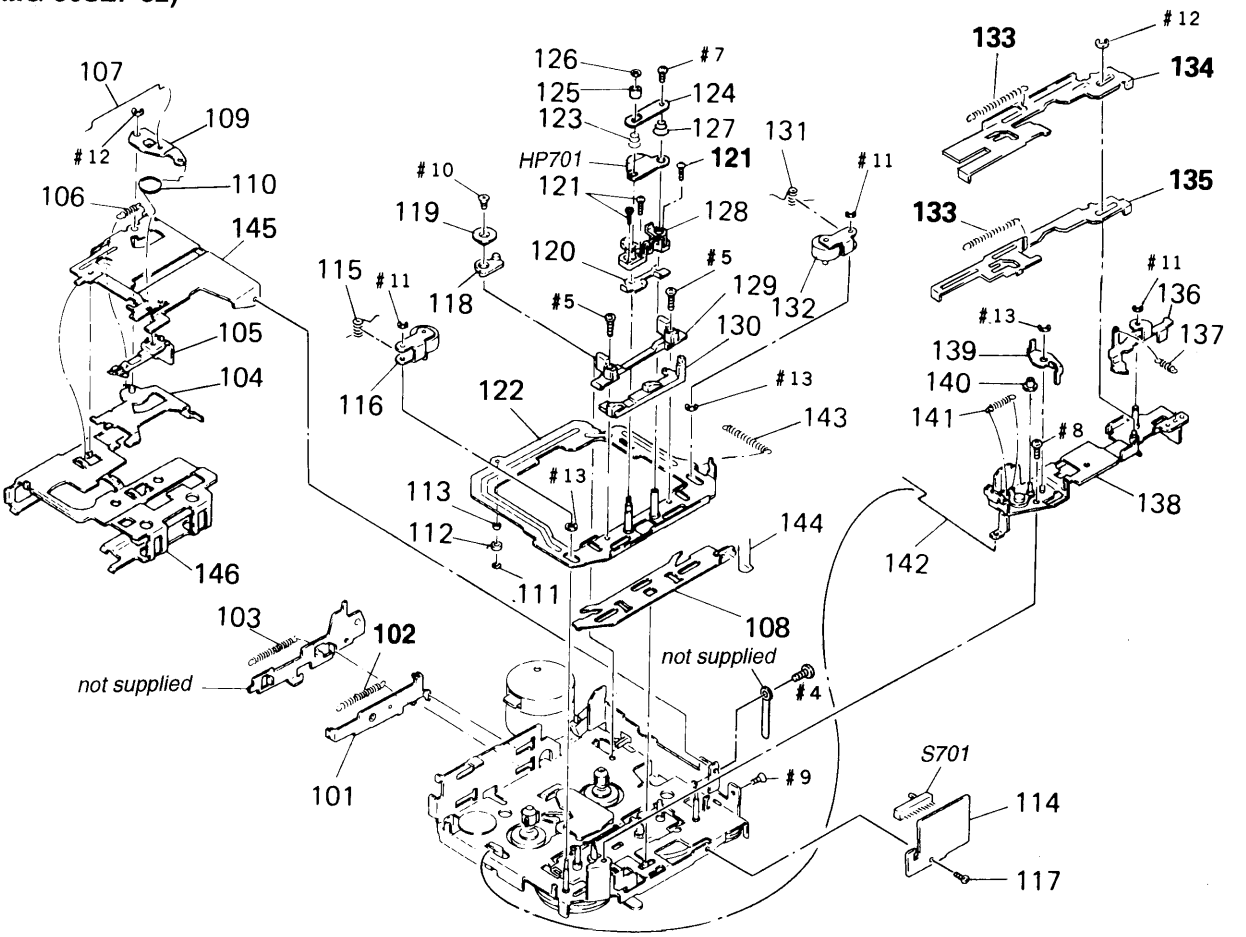
SEE ADDITIONAL INFORMATION




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 51 | 3-937-551-01 | BUTTON (RELEASE) | |
| 52 | 3-937-553-01 | SPRING (RELEASE) | |
| 53 | 3-007-675-01 | PLATE, INDICATION | |
| 54 | 3-937-550-01 | BUTTON (EJECT) | |
| 55 | 3-937-549-01 | BUTTON (REW) | |
| 56 | 3-937-548-01 | BUTTON (FF) | |
| 57 | 3-937-632-01 | SPRING (EJECT) | |
| 58 | 3-937-544-01 | PANEL, FRONT | |
| 59 | 3-937-547-01 | BUTTON (SEL) | |
| * 60 | 3-937-556-01 | PLATE, LIGHT GUIDE | |
| 61 | 3-937-546-01 | BUTTON (1-6) | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 62 | 3-008-575-01 | BUTTON (SENS) | |
| * 63 | 3-937-557-01 | PLATE (LCD), GROUND | |
| * 64 | 3-937-560-01 | SHEET (REFLECTOR) | |
| * 65 | 3-937-559-01 | PLATE (LCD), LIGHT GUIDE | |
| 66 | 3-937-558-01 | HOLDER (LCD) | |
| 67 | 3-937-555-01 | PLATE (FP), GROUND | |
| 68 | 3-937-554-01 | PANEL, FRONT BACK | |
| * 69 | 3-939-555-01 | PLATE, LIGHT INTERCEPTION | |
| 70 | 3-916-981-11 | SCREW (2X8) (BZN), +BTT | |
| H801 | 1-801-456-11 | DISPLAY PANEL, LIQUID CRYSTAL | |

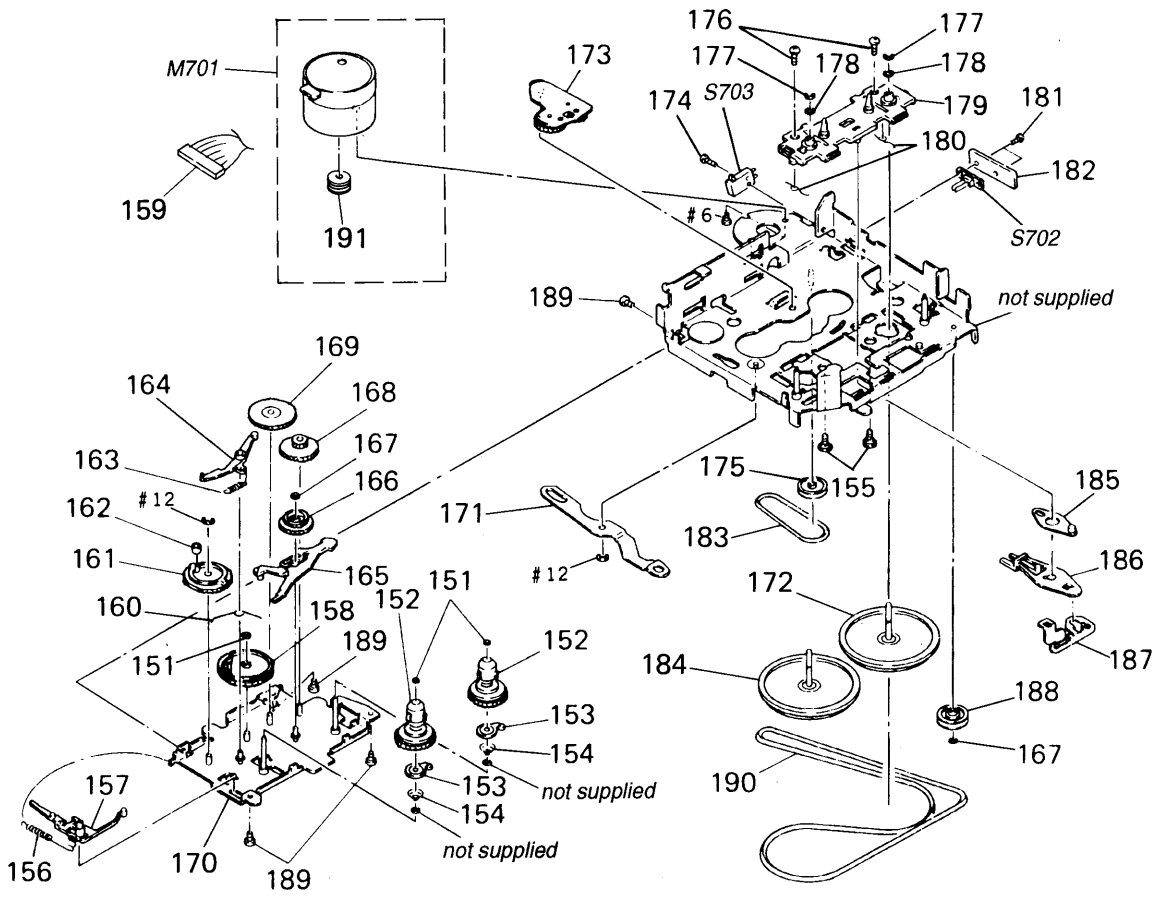
## 6-3. MECHANISM SECTION (1)
## (MG-36SZ7-32)




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 101 | 3-938-660-01 | LEVER, EJECT | |
| 102 | 3-392-950-01 | SPRING | |
| 103 | 3-392-951-01 | SPRING | |
| * 104 | 3-392-921-01 | LOCK ASSY, EJECT CAM | |
| 105 | 3-392-972-01 | HOOKER, TAPE | |
| 106 | 3-392-953-01 | SPRING | |
| 107 | 3-392-969-01 | LINK, RETURN | |
| * 108 | 3-392-919-01 | ARM ASSY, F,R SELECTION | |
| * 109 | 3-392-932-01 | PLATE, CENTER | |
| 110 | 3-392-961-01 | SPRING (B) | |
| 111 | 3-570-615-00 | POLY-WASHER (DIA.1.2) | |
| 112 | 3-392-945-01 | ROLLER (A), H.P | |
| 113 | 3-392-942-01 | ROLLER (B), H.P | |
| 114 | 3-392-970-01 | CHASSIS, SWITCH (DIRECTION SWITCH BOARD) | |
| 115 | 3-392-958-01 | SPRING (R) | |
| 116 | 3-375-378-01 | ARM (R) ASSY, PINCH | |
| * 117 | 4-908-792-11 | SCREW (B2) | |
| 118 | 3-372-244-01 | ARM (N), MUTE | |
| * 119 | 3-397-427-01 | COLLAR, MUTE ARM | |
| 120 | 3-377-908-01 | SHIM (X), ADJUSTOR | |
| 121 | 3-375-379-01 | SCREW, AZIMUTH | |
| * 122 | 3-392-975-05 | PLATE ASSY (S), HEAD | |
| 123 | 3-392-956-01 | SPRING (A) | |
| * 124 | 3-392-930-01 | RETAINER, SPRING | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 125 | 3-392-943-01 | ROLLER, FF | |
| 126 | 3-676-387-00 | POLY-SLIDER (DIA.1.6) | |
| 127 | 3-392-955-01 | SPRING (A) | |
| * 128 | 3-379-142-01 | ARM (B), ADJUSTOR | |
| 129 | 3-392-984-02 | GUIDE, TAPE | |
| 130 | 3-377-909-02 | LINK (X), ADJUSTOR | |
| 131 | 3-392-957-01 | SPRING (F) | |
| 132 | 3-375-377-01 | ARM (F) ASSY, PINCH | |
| 133 | 3-392-948-01 | SPRING | |
| 134 | 3-938-658-01 | LEVER, FF | |
| 135 | 3-938-659-01 | LEVER, REW | |
| * 136 | 3-392-935-01 | ARM, LOCK | |
| 137 | 3-392-917-01 | SPRING | |
| * 138 | 3-372-242-01 | BRACKET ASSY (D), LEVER | |
| * 139 | 3-392-933-01 | LEVER (B), CHANGE | |
| 140 | 3-392-994-01 | ROLLER, PROGRAM | |
| 141 | 3-392-954-01 | SPRING | |
| 142 | 3-372-243-01 | LINK (B), SELECTOR | |
| 143 | 3-392-952-01 | SPRING | |
| 144 | 3-392-962-01 | SPRING | |
| 145 | 3-375-383-01 | HANGER (X), CASSETTE | |
| 146 | 3-375-384-01 | HOLDER (X), CASSETTE | |
| HP701 | 1-543-717-11 | HEAD, MAGNETIC (PLAYBACK) | |
| S701 | 1-692-502-11 | SWITCH, SLIDE (DIRECTION) | |

## 6-4. MECHANISM SECTION (2)
## (MG-36SZ7-32)




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 151 | 3-676-387-00 | POLY-SLIDER (DIA.1.6) | |
| 152 | 3-376-196-01 | SPINDLE ASSY (S), REEL | |
| 153 | 3-375-380-01 | CAM ASSY, DETECTION | |
| 154 | 3-370-619-01 | SPRING, BACK TENSION | |
| 155 | 3-392-918-01 | SCREW, EJECT HOOK | |
| 156 | 3-392-959-01 | SPRING | |
| 157 | 3-392-985-02 | RATCHET | |
| 158 | 3-392-990-01 | GEAR, DETECTION | |
| 159 | 3-008-116-01 | CORD ASSY, CONNECTOR | |
| 160 | 3-392-960-01 | SPRING | |
| 161 | 3-392-987-01 | GEAR, SELECTOR | |
| 162 | 3-392-944-01 | COLLAR (SELECTOR GEAR) | |
| 163 | 3-375-131-01 | SPRING, GEAR LOCK ARM | |
| 164 | 3-392-989-02 | ARM, GEAR LOCK | |
| 165 | 3-392-986-01 | ARM, SENSOR | |
| 166 | 3-392-915-01 | GEAR, IDLE | |
| 167 | 3-570-615-00 | POLY-WASHER (DIA.1.2) | |
| 168 | 3-392-936-01 | GEAR (A) | |
| 169 | 3-392-937-01 | GEAR (B) | |
| * 170 | 3-392-976-01 | BASE ASSY, REEL | |
| * 171 | 3-392-979-01 | LEVER, REVERSE | |
| 172 | 3-392-926-02 | FLYWHEEL ASSY (BF) | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 173 | 3-392-916-01 | ARM ASSY, TU GEAR | |
| 174 | 3-318-203-11 | SCREW (B1.7X6), TAPPING | |
| 175 | 3-392-938-01 | GEAR, PULLY | |
| 176 | 3-318-204-81 | SCREW (M1.7X3), TAPPING | |
| 177 | 3-590-768-00 | RING (A), E | |
| 178 | 3-701-437-11 | POLY-SLIDER (A) | |
| * 179 | 3-375-381-01 | BRACKET ASSY (X), CM | |
| 180 | 3-392-963-01 | SPRING (R) | |
| 181 | 3-318-204-91 | SCREW (M1.7X4), TAPPING | |
| 182 | 3-375-376-01 | MUTE (PWB) (MUTE SWITCH BOARD) | |
| 183 | 3-375-375-02 | BELT (C), SUB | |
| 184 | 3-392-995-02 | FLYWHEEL ASSY (BR) | |
| * 185 | 3-392-925-01 | ARM (A) ASSY, F.R | |
| * 186 | 3-392-939-01 | ARM, FF | |
| * 187 | 3-392-934-01 | ARM (B), F.R | |
| 188 | 3-392-941-01 | PULLEY (A), IDLE | |
| * 189 | 4-908-792-11 | SCREW (B2) | |
| 190 | 3-392-967-01 | BELT, MAIN | |
| * 191 | 3-392-913-01 | PULLEY, MOTOR | |
| M701 | X-3364-496-1 | MOTOR ASSY (REEL/CAPSTAN) | |
| S702 | 1-692-065-11 | SWITCH, LEAF (MUTE) | |
| S703 | 1-554-790-21 | SWITCH, POWER (TAPE DET) | |

# SECTION 7
# ELECTRICAL PARTS LIST

**KEY**

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ, for example:
  uA.. : μA.. uPA.. : μPA..
  uPB.. : μPB.. uPC.. : μPC.. uPD.. : μPD..
- CAPACITORS
  uF : μF
- COILS
  uH : μH

When indicating parts by reference number, please include the board.

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| | | KEY BOARD | | | |
| | | ********** | | | |
| * | 3-937-557-01 | PLATE (LCD), GROUND | | | |
| | 3-937-558-01 | HOLDER (LCD) | | | |
| * | 3-937-559-01 | PLATE (LCD), LIGHT GUIDE | | | |
| * | 3-937-560-01 | SHEET (REFLECTOR) | | | |
| | | < CAPACITOR > | | | |
| C801 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C802 | 1-163-137-00 | CERAMIC CHIP | 680PF | 5% | 50V |
| | | < DIODE > | | | |
| D801 | 8-719-025-31 | DIODE 02CZ5.6-TE85L | | | |
| D802 | 8-719-025-31 | DIODE 02CZ5.6-TE85L | | | |
| D803 | 8-719-025-31 | DIODE 02CZ5.6-TE85L | | | |
| D804 | 8-719-025-31 | DIODE 02CZ5.6-TE85L | | | |
| D805 | 8-719-043-82 | DIODE 02CZ5.1Y-TE85L | | | |
| | | < LIQUID CRYSTAL DISPLAY > | | | |
| H801 | 1-801-456-11 | DISPLAY PANEL, LIQUID CRYSTAL | | | |
| | | < IC > | | | |
| IC801 | 8-759-433-68 | IC LC75842E | | | |
| | | < CONNECTOR > | | | |
| P801 | 1-764-423-11 | PIN, CONNECTOR 12P | | | |
| | | < PILOT LAMP > | | | |
| PL801 | 1-517-626-11 | LAMP, PILOT | | | |
| PL802 | 1-517-626-11 | LAMP, PILOT | | | |
| PL803 | 1-517-626-11 | LAMP, PILOT | | | |
| PL804 | 1-517-626-11 | LAMP, PILOT | | | |
| | | < RESISTOR > | | | |
| R801 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R802 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R803 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R804 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W |
| R805 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R806 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R807 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W |
| R841 | 1-216-056-00 | METAL GLAZE | 2K | 5% | 1/10W |
| R842 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W |
| R843 | 1-216-066-00 | METAL CHIP | 5.1K | 5% | 1/10W |
| R844 | 1-216-070-00 | METAL CHIP | 7.5K | 5% | 1/10W |
| R845 | 1-216-076-00 | METAL CHIP | 13K | 5% | 1/10W |
| R846 | 1-216-056-00 | METAL GLAZE | 2K | 5% | 1/10W |
| R847 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W |
| R848 | 1-216-066-00 | METAL CHIP | 5.1K | 5% | 1/10W |
| R849 | 1-216-070-00 | METAL CHIP | 7.5K | 5% | 1/10W |
| R850 | 1-216-056-00 | METAL GLAZE | 2K | 5% | 1/10W |
| R851 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W |
| R852 | 1-216-066-00 | METAL CHIP | 5.1K | 5% | 1/10W |
| R853 | 1-216-070-00 | METAL CHIP | 7.5K | 5% | 1/10W |
| | | < SWITCH > | | | |
| SW801 | 1-554-813-41 | SWITCH, KEY BOARD (OFF) | | | |
| SW802 | 1-554-813-41 | SWITCH, KEY BOARD (6) | | | |
| SW803 | 1-554-813-41 | SWITCH, KEY BOARD (5) | | | |
| SW804 | 1-554-813-41 | SWITCH, KEY BOARD (4) | | | |
| SW805 | 1-554-813-41 | SWITCH, KEY BOARD (3) | | | |
| SW806 | 1-554-813-41 | SWITCH, KEY BOARD (2/DISC +) | | | |
| SW807 | 1-554-813-41 | SWITCH, KEY BOARD (CD) | | | |
| SW808 | 1-554-813-41 | SWITCH, KEY BOARD (SENS/LOUD) | | | |
| SW809 | 1-554-813-41 | SWITCH, KEY BOARD (SEEK +/AMS ▶▶I/MANU +) | | | |
| SW810 | 1-554-813-41 | SWITCH, KEY BOARD (1/DISC –) | | | |
| SW811 | 1-554-813-41 | SWITCH, KEY BOARD (DSPL) | | | |
| SW812 | 1-554-813-41 | SWITCH, KEY BOARD (TUNER/A.MEM) | | | |
| SW813 | 1-554-813-41 | SWITCH, KEY BOARD (SEEK –/AMS I◀◀/MANU –) | | | |
| SW814 | 1-554-813-41 | SWITCH, KEY BOARD (+) | | | |
| SW815 | 1-554-813-41 | SWITCH, KEY BOARD (SEL) | | | |
| SW816 | 1-554-813-41 | SWITCH, KEY BOARD (–) | | | |

**********

# MAIN

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| * | A-3294-147-A | MAIN BOARD, COMPLETE | | | |
| | | ********** | | | |
| * | 3-937-533-01 | BRACKET (IC) | | | |
| | 7-621-773-95 | SCREW +B 2.6X6 | | | |
| | | < CAPACITOR > | | | |
| C201 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C202 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C203 | 1-124-443-00 | ELECT | 100uF | 20% | 10V |
| C204 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C205 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C206 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C208 | 1-163-989-11 | CERAMIC CHIP | 0.033uF | 10% | 25V |
| C209 | 1-163-989-11 | CERAMIC CHIP | 0.033uF | 10% | 25V |
| C210 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C303 | 1-163-139-00 | CERAMIC CHIP | 820PF | 5% | 50V |
| C304 | 1-163-139-00 | CERAMIC CHIP | 820PF | 5% | 50V |
| C305 | 1-126-514-11 | ELECT | 22uF | 20% | 16V |
| C306 | 1-126-514-11 | ELECT | 22uF | 20% | 16V |
| C307 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C308 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C309 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C401 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V |
| C402 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V |
| C403 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C404 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C405 | 1-163-011-11 | CERAMIC CHIP | 0.0015uF | 10% | 50V |
| C406 | 1-163-011-11 | CERAMIC CHIP | 0.0015uF | 10% | 50V |
| C407 | 1-163-037-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C408 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V |
| C409 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C410 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C411 | 1-163-037-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C412 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V |
| C413 | 1-163-989-11 | CERAMIC CHIP | 0.033uF | 10% | 25V |
| C414 | 1-163-989-11 | CERAMIC CHIP | 0.033uF | 10% | 25V |
| C415 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C416 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C451 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C452 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C483 | 1-126-791-11 | ELECT | 10uF | 20% | 16V |
| C484 | 1-126-791-11 | ELECT | 10uF | 20% | 16V |
| C501 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C502 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C503 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C504 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C509 | 1-126-791-11 | ELECT | 10uF | 20% | 16V |
| C510 | 1-126-791-11 | ELECT | 10uF | 20% | 16V |
| C512 | 1-124-556-11 | ELECT | 2200uF | 20% | 16V |
| C529 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C541 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C542 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C601 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C602 | 1-125-701-11 | DOUBLE LAYERS | 0.047F | | 5.5V |
| C603 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C622 | 1-164-162-11 | CERAMIC CHIP | 100PF | 5% | 100V |
| C701 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C703 | 1-163-099-00 | CERAMIC CHIP | 18PF | 5% | 50V |
| C704 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C705 | 1-163-037-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C706 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C707 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C708 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C709 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C710 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C711 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C712 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C713 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C714 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C771 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| | | < DIODE > | | | |
| D301 | 8-719-982-09 | DIODE | MTZJ-4.3 | | |
| D501 | 8-719-984-81 | DIODE | 1SR139-400 | | |
| D601 | 8-719-109-89 | DIODE | RD5.6ESB2 | | |
| D602 | 8-719-110-14 | DIODE | RD9.1ES-B3 | | |
| D604 | 8-719-110-08 | DIODE | RD8.2ES-B2 | | |
| D606 | 8-719-991-33 | DIODE | 1SS133T-77 | | |
| D607 | 8-719-061-04 | DIODE | 1SS145T-77 | | |
| D621 | 8-719-061-04 | DIODE | 1SS145T-77 | | |
| D622 | 8-719-061-05 | DIODE | 1N5401(N) | | |
| D711 | 8-719-109-93 | DIODE | RD6.2ESB2 | | |
| D712 | 8-719-109-93 | DIODE | RD6.2ESB2 | | |
| D713 | 8-719-109-93 | DIODE | RD6.2ESB2 | | |
| D714 | 8-719-109-93 | DIODE | RD6.2ESB2 | | |
| D715 | 8-719-109-93 | DIODE | RD6.2ESB2 | | |
| D716 | 8-719-109-93 | DIODE | RD6.2ESB2 | | |
| D717 | 8-719-109-93 | DIODE | RD6.2ESB2 | | |
| D718 | 8-719-109-93 | DIODE | RD6.2ESB2 | | |
| D719 | 8-719-109-93 | DIODE | RD6.2ESB2 | | |
| D771 | 8-719-109-93 | DIODE | RD6.2ESB2 | | |
| D773 | 8-719-109-93 | DIODE | RD6.2ESB2 | | |
| D774 | 8-719-109-93 | DIODE | RD6.2ESB2 | | |
| D775 | 8-719-109-93 | DIODE | RD6.2ESB2 | | |
| D776 | 8-719-109-93 | DIODE | RD6.2ESB2 | | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | < TUNER > | |
| * ET201 | A-3294-148-A | TUNER ASSY | |
| | | < VIBRATOR > | |
| F701 | 1-578-785-11 | VIBRATOR, CRYSTAL (4.5MHz) | |
| | | < FUSE > | |
| F901 | 1-533-330-11 | FUSE (BLADE TYPE) (AUTO FUSE) 10A | |
| | | < IC > | |
| IC301 | 8-759-106-02 | IC uPC4570G2 | |
| IC401 | 8-759-161-19 | IC TDA7314S | |
| IC451 | 8-759-076-15 | IC KIA4558P | |
| IC481 | 8-759-208-08 | IC TC4052BPHB | |
| IC501 | 8-759-369-42 | IC HA13153 | |
| IC701 | 8-759-437-26 | IC LC72356-9241 | |
| IC771 | 8-759-096-16 | IC MM1175XFF | |
| | | < COIL > | |
| L621 | 1-411-669-12 | COIL, CHOKE | |
| L701 | 1-410-513-11 | INDUCTOR 22uH | |
| | | < CONNECTOR > | |
| * P301 | 1-506-993-11 | PIN, CONNECTOR (PC BOARD) 11P | |
| P503 | 1-774-701-11 | PIN, CONNECTOR 16P | |
| P701 | 1-764-422-11 | PLUG, CONNECTOR 12P | |
| | | < JACK > | |
| PJ502 | 1-778-536-11 | JACK, PIN 4P (BUS AUDIO IN, LINE OUT) | |
| PJ601 | 1-580-907-31 | PLUG, CONNECTOR 8P (BUS CONTROL IN) | |
| | | < TRANSISTOR > | |
| Q301 | 8-729-039-52 | TRANSISTOR KTA1272OY-AT | |
| Q302 | 8-729-901-00 | TRANSISTOR DTC124EK | |
| Q501 | 8-729-900-98 | TRANSISTOR DTC143TK | |
| Q502 | 8-729-900-98 | TRANSISTOR DTC143TK | |
| Q503 | 8-729-900-98 | TRANSISTOR DTC143TK | |
| Q504 | 8-729-900-98 | TRANSISTOR DTC143TK | |
| Q505 | 8-729-901-05 | TRANSISTOR DTA124EK | |
| Q506 | 8-729-901-00 | TRANSISTOR DTC124EK | |
| Q507 | 8-729-028-63 | TRANSISTOR DTA115TKA-T146 | |
| Q601 | 8-729-039-53 | TRANSISTOR KTC3113B-AT | |
| Q602 | 8-729-039-83 | TRANSISTOR 2SD1858-QR-TV2 | |
| Q603 | 8-729-016-43 | TRANSISTOR KTC3199Y-TP | |
| Q604 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q605 | 8-729-039-52 | TRANSISTOR KTA1272OY-AT | |
| Q606 | 8-729-901-00 | TRANSISTOR DTC124EK | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| Q621 | 8-729-039-82 | TRANSISTOR 2SB1326-QR-TV2 | |
| Q622 | 8-729-901-00 | TRANSISTOR DTC124EK | |
| Q701 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q702 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| | | < RESISTOR > | |
| R201 | 1-216-081-00 | METAL CHIP 22K 5% | 1/10W |
| R202 | 1-216-057-00 | METAL CHIP 2.2K 5% | 1/10W |
| R203 | 1-216-073-00 | METAL CHIP 10K 5% | 1/10W |
| R204 | 1-216-049-11 | METAL GLAZE 1K 5% | 1/10W |
| R205 | 1-216-049-11 | METAL GLAZE 1K 5% | 1/10W |
| R207 | 1-216-081-00 | METAL CHIP 22K 5% | 1/10W |
| R208 | 1-216-085-00 | METAL CHIP 33K 5% | 1/10W |
| R209 | 1-216-049-11 | METAL GLAZE 1K 5% | 1/10W |
| R210 | 1-216-049-11 | METAL GLAZE 1K 5% | 1/10W |
| R213 | 1-216-295-00 | CONDUCTOR, CHIP | (2012) |
| R301 | 1-216-089-00 | METAL GLAZE 47K 5% | 1/10W |
| R302 | 1-216-089-00 | METAL GLAZE 47K 5% | 1/10W |
| R303 | 1-216-031-00 | METAL CHIP 180 5% | 1/10W |
| R304 | 1-216-031-00 | METAL CHIP 180 5% | 1/10W |
| R307 | 1-216-109-00 | METAL CHIP 330K 5% | 1/10W |
| R308 | 1-216-109-00 | METAL CHIP 330K 5% | 1/10W |
| R309 | 1-216-077-00 | METAL CHIP 15K 5% | 1/10W |
| R310 | 1-216-077-00 | METAL CHIP 15K 5% | 1/10W |
| R311 | 1-216-049-11 | METAL GLAZE 1K 5% | 1/10W |
| R321 | 1-216-081-00 | METAL CHIP 22K 5% | 1/10W |
| R322 | 1-216-057-00 | METAL CHIP 2.2K 5% | 1/10W |
| R323 | 1-216-077-00 | METAL CHIP 15K 5% | 1/10W |
| R324 | 1-216-081-00 | METAL CHIP 22K 5% | 1/10W |
| R325 | 1-216-077-00 | METAL CHIP 15K 5% | 1/10W |
| R326 | 1-216-081-00 | METAL CHIP 22K 5% | 1/10W |
| R403 | 1-216-073-00 | METAL CHIP 10K 5% | 1/10W |
| R404 | 1-216-073-00 | METAL CHIP 10K 5% | 1/10W |
| R405 | 1-216-049-11 | METAL GLAZE 1K 5% | 1/10W |
| R407 | 1-216-037-00 | METAL CHIP 330 5% | 1/10W |
| R408 | 1-216-037-00 | METAL CHIP 330 5% | 1/10W |
| R410 | 1-216-049-11 | METAL GLAZE 1K 5% | 1/10W |
| R411 | 1-216-081-00 | METAL CHIP 22K 5% | 1/10W |
| R412 | 1-216-081-00 | METAL CHIP 22K 5% | 1/10W |
| R413 | 1-216-065-00 | METAL CHIP 4.7K 5% | 1/10W |
| R451 | 1-216-077-00 | METAL CHIP 15K 5% | 1/10W |
| R452 | 1-216-077-00 | METAL CHIP 15K 5% | 1/10W |
| R453 | 1-216-083-00 | METAL CHIP 27K 5% | 1/10W |
| R454 | 1-216-083-00 | METAL CHIP 27K 5% | 1/10W |
| R481 | 1-216-069-00 | METAL CHIP 6.8K 5% | 1/10W |
| R482 | 1-216-069-00 | METAL CHIP 6.8K 5% | 1/10W |
| R485 | 1-216-097-00 | METAL GLAZE 100K 5% | 1/10W |
| R486 | 1-216-097-00 | METAL GLAZE 100K 5% | 1/10W |
| R487 | 1-216-069-00 | METAL CHIP 6.8K 5% | 1/10W |

## MAIN

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R488 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W |
| R489 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W |
| R490 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W |
| R491 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W |
| R492 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W |
| R493 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W |
| R494 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W |
| R501 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R502 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R503 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R504 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R505 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W |
| R506 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W |
| R507 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R508 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R509 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W |
| R510 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W |
| R511 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R512 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R513 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R514 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R523 | 1-216-097-00 | METAL GLAZE | 100K | 5% | 1/10W |
| R524 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R541 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W |
| R542 | 1-216-121-00 | METAL GLAZE | 1M | 5% | 1/10W |
| R543 | 1-216-121-00 | METAL GLAZE | 1M | 5% | 1/10W |
| R544 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W |
| R545 | 1-216-097-00 | METAL GLAZE | 100K | 5% | 1/10W |
| R601 | 1-216-025-00 | METAL GLAZE | 100 | 5% | 1/10W |
| R602 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W |
| R603 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R604 | 1-216-043-00 | METAL GLAZE | 560 | 5% | 1/10W |
| R605 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R606 | 1-216-071-00 | METAL CHIP | 8.2K | 5% | 1/10W |
| R609 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R610 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R613 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R621 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R622 | 1-247-747-11 | CARBON | 470 | 5% | 1/2W |
| R701 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W |
| R702 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W |
| R703 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R705 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W |
| R708 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R709 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W |
| R710 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R711 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R712 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R713 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R714 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R715 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R716 | 1-216-097-00 | METAL GLAZE | 100K | 5% | 1/10W |
| R717 | 1-216-097-00 | METAL GLAZE | 100K | 5% | 1/10W |
| R718 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R719 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R720 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R721 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R722 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R725 | 1-216-097-00 | METAL GLAZE | 100K | 5% | 1/10W |
| R726 | 1-216-097-00 | METAL GLAZE | 100K | 5% | 1/10W |
| R727 | 1-216-097-00 | METAL GLAZE | 100K | 5% | 1/10W |
| R731 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R732 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R733 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R734 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R735 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R736 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R737 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R738 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R739 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R740 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R771 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R772 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R773 | 1-216-001-00 | METAL CHIP | 10 | 5% | 1/10W |
| R774 | 1-216-001-00 | METAL CHIP | 10 | 5% | 1/10W |
| R775 | 1-216-049-11 | METAL GLAZE | 1K | 5% | 1/10W |
| R776 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |

< SWITCH >

| | | | |
|---|---|---|---|
| SW703 | 1-554-088-00 | SWITCH, KEY BOARD (RESET) | |

< THERMISTOR >

| | | | |
|---|---|---|---|
| TH621 | 1-809-148-11 | THERMISTOR PTH8L07AR2R0M1B510 | |

**********

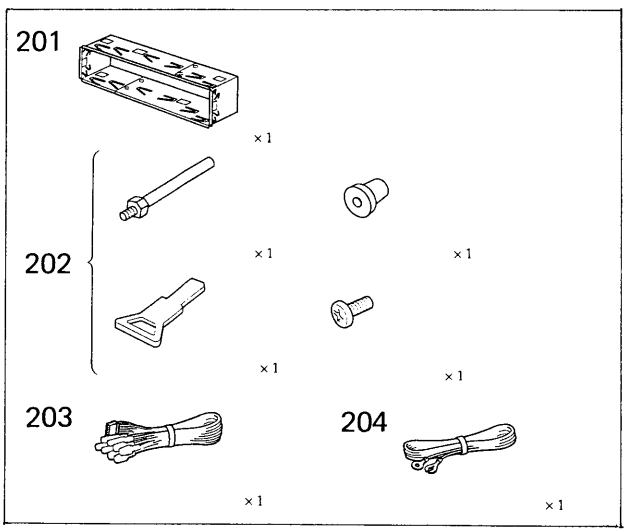
MISCELLANEOUS

**********

| | | | |
|---|---|---|---|
| 1 | 1-776-207-31 | CORD (WITH CONNECTOR) (POWER) | |
| F901 | 1-533-330-11 | FUSE (BLADE TYPE) (AUTO FUSE) 10A | |
| HP701 | 1-543-717-11 | HEAD, MAGNETIC (PLAYBACK) | |
| M701 | X-3364-496-1 | MOTOR ASSY (REEL/CAPSTAN) | |
| S701 | 1-692-502-11 | SWITCH, SLIDE (DIRECTION) | |
| S702 | 1-692-065-11 | SWITCH, LEAF (MUTE) | |
| S703 | 1-554-790-21 | SWITCH, POWER (TAPE DET) | |

**********

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | ACCESSORIES & PACKING MATERIALS | |
| | | ********** | |
| | 3-856-405-41 | MANUAL, INSTRUCTION (ENGLISH,POLISH, BULGARIAN,HUNGARIAN,RUSSIAN) | |
| | 3-856-406-41 | MANUAL, INSTRUCTION, INSTALL (ENGLISH, POLISH,BULGARIAN,HUNGARIAN,RUSSIAN) | |
| | X-3372-303-1 | CASE ASSY | |
| | | ********** | |
| | | HARDWARE LIST | |
| | | ********** | |
| #1 | 7-621-773-95 | SCREW +B 2.6X6 | |
| #2 | 7-621-775-10 | SCREW +B 2.6X4 | |
| #3 | 7-685-547-19 | SCREW +BTP 3X10 TYPE2 N-S | |
| #4 | 7-621-775-08 | SCREW +P 2.6X3 | |
| #5 | 7-627-553-88 | SCREW, PRECISION +P 2X7 | |
| #6 | 7-621-255-15 | SCREW +P 2X3 | |
| #7 | 7-621-255-20 | SCREW +P 2X4 | |
| #8 | 7-621-255-25 | SCREW +PTT 2X4 (S) | |
| #9 | 7-621-555-10 | SCREW +K 2X3 | |
| #10 | 7-621-591-00 | SCREW +K 2X4 | |
| #11 | 7-624-102-04 | STOP RING 1.5, TYPE -E | |
| #12 | 7-624-104-04 | STOP RING 2.0, TYPE -E | |
| #13 | 7-624-118-01 | RING, RETAINING E-2.5 | |
| | | ********** | |
| | | PARTS FOR INSTALLATION AND CONNECTIONS | |
| | | ********** | |
| 201 | X-3368-734-1 | FRAME ASSY, FITTING | |
| 202 | X-3372-372-1 | SCREW ASSY | |
| 203 | 1-776-207-31 | CORD (WITH CONNECTOR) (POWER) | |
| 204 | 1-575-616-21 | CORD (WITH TERMINAL) (CHASSIS EARTH) | |



9-923-584-11

Sony Corporation
Personal & Mobile Communication Company



English
96H04074-1
Printed in Japan
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# XR-C113

SONY

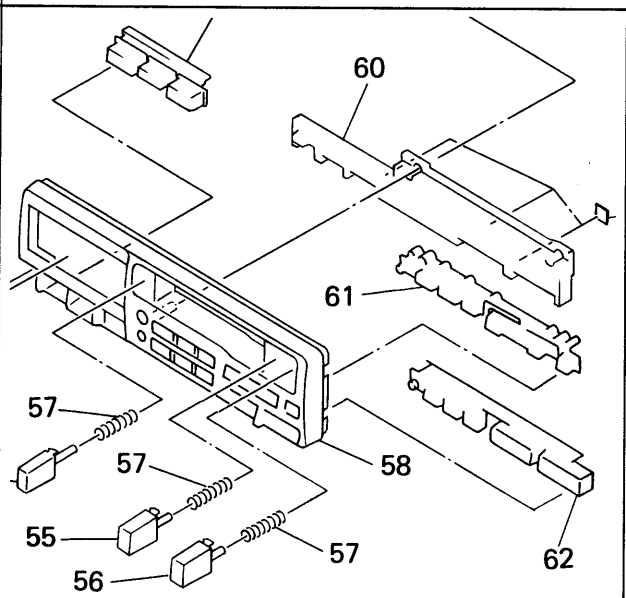
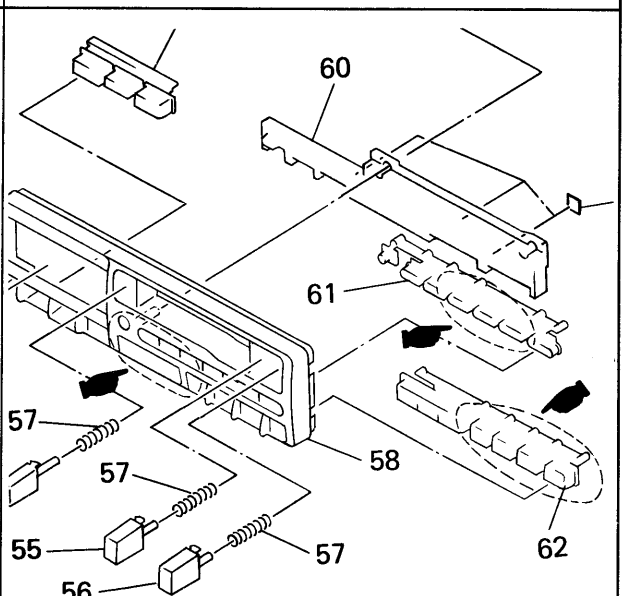
*East European Model*

# SERVICE MANUAL

## CORRECTION-1

Correct your service manual as shown below.

☛ : indicates corrected portion.

| Page | INCORRECT | CORRECT |
|---|---|---|
| 28 |  |  |
| | Ref. No. Part No. Description Remark<br>62 3-008-575-01 BUTTON (SENS) | Part No. Description Remark<br>3-008-575-01 BUTTON (TUNER) ☛ |


9-923-584-91

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96L04073-1D
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